THE

WORKS

OF

ARISTOTLE,

IN FOUR PARTS.

CONTAINING

I. His COMPLETE MASTER-PIECE; displaying the Secrets of Nature in the Generation of Man. To which is added, The FAMILY PHYSICIAN, being approved Remedies for the ſeveral Diſtempers incident to the Human Body.

II. His EXPERIENCED MIDWIFE; abſolutely neceſſary for Surgeons, Midwives, Nurſes, and Child-bearing Women.

III. His BOOK of PROBLEMS; containing various Queſtions and Anſwers relative to the State of Man's Body.

IV. His LAST LEGACY: unfolding the Secrets of Nature reſpecting the Generation of Man.

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TO THE

READER.

TO ſay that ARISTOTLE, the learned Author of the following ſheets, was reported to be the moſt learned philoſopher in the world, is no more than what every intelligent perſon already knows; nor can any think otherwiſe, who will give themſelves time to conſider that he was the ſcholar of Plato, (the wiſeſt philoſopher of his time) and under whom Ariſtotle profited ſo much, that he was choſen by King Philip of Macedon as the moſt worthy and proper perſon in his dominions to be tutor to his ſon Alexander, by whoſe wiſe precepts and inſtructions Alexander became maſter of ſo great wiſdom, judgment, proweſs and magnanimity, that he juſtly obtained the title of the Great. Alexander himſelf was ſo ſenſible of the advantage he received from the inſtructions of ſo great a Stagirite, (for ſo Ariſtotle was called from the country of Stagira, where he was born) that he often declared he was more beholden to his tutor Ariſtotle for the cultivation of his mind, than to Philip his father for the kingdom of Macedon.

Though Ariſtotle applied himſelf to the inveſtigation of the ſecrets of Nature, yet he was pleaſed to bring into a fuller and more true light thoſe ſecrets with reſpect to the generation of man. This he ſtiled his MASTER PIECE; and in this he has made ſo thorough a ſearch, that he has as it were turned Nature inſide out.

The divine records aſſure us, that the ſecrets of Nature has been the ſtudy of divers illuſtrious perſons, equally renowned for wiſdom and goodneſs; the firſt of whom, Job, has made it ſufficiently evident by that excellent philoſophical account he gives of the generation of man, in the tenth chapter of the book which bears his name; where he ſays, "Thine hands have made me, and faſhioned me together "round about: Thou haſt poured me out as milk, and curd-

"led me like cheeſe: Thou haſt cloathed me with ſkin and "fleſh, and haſt fenced me with bones and ſinews." David, one of the greateſt kings of Iſrael, whoſe piety was ſuperior to his power, being peculiarly ſtiled a man after God's own heart, ſays, in his divine ſoliloquies to his Creator, "Thou haſt covered me in my mother's womb; I will "praiſe thee; for I am fearfully and wonderfully made: "Marvellous are thy works, and that my ſoul knoweth right "well. My ſubſtance was not hid from thee when I was in "ſecret, and curiouſly wrought in the loweſt parts of the "earth: Thine eye did ſee my ſubſtance, yet being unper-"fect; and in thy book all my members were written, "which in continuance were faſhioned, when as yet there "was none of them."

Let the words of holy Job and thoſe of David be put together, and I will not ſcruple to affirm, that they make the moſt accurate ſyſtem of philoſophy reſpecting the generation of man that has ever yet been penned; therefore, why ſhould not the myſteries of Nature be inquired into without cenſure, ſince, from this inquiry, ſo much praiſe reſounds to the God of Nature? The more we know of whoſe works, the more our hearts will be inclined to praiſe him, as we ſee in the inſtance of David above mentioned.

That the knowledge of the ſecrets of Nature is too often abuſed by many perſons, I readily grant, and think it very unfortunate that there ſhould be a generation of ſuch profligate perſons in the world; but at the ſame time do aver that this is no objection to this work.

Having ſaid thus much of the wonderful works of Nature in the generation of man, I ſhall next proceed to give the reader the beſt Tranſlation poſſible of that excellent Treatiſe of the renowned Ariſtotle, which he was pleaſed to ſtile his MASTER PIECE.

I cannot help obſerving, that having met with a collection of approved Recipes by the great Hippocrates, and thinking they would be very acceptable to my readers, I have added the ſame, by way of Supplement, at the end of the MASTER-PIECE.

Ariſtotle's

Ariſtotle's Maſter Piece.

PART I.

The Secrets of Nature diſplayed.

INTRODUCTION.

IT is ſtrange to ſee how things are ſlighted only becauſe they are common, tho' in themſelves worthy of the moſt ſerious conſideration. This is the very caſe of the ſubject I am now treating of. What is more common than the begetting of children? And what is more wonderful than the plaſtic power of Nature, by which children are formed. For though there be radicated in the very nature of all creatures a propenſion which leads them to produce the image of themſelves, yet how theſe images are produced after thoſe propenſions are ſatisfied, is only known to thoſe who trace the ſecret meanders of Nature in her private chambers, thoſe dark receſſes of the womb, where this embryo receives formation. The original of which proceeds from the Divine command—Increaſe and multiply. The natural inclination and propenſity of both ſexes to each other, with the plaſtic power of Nature, is only the energy of the firſt bleſſing, which to this day upholds the ſpecies of mankind in the world.

Now ſince philoſophy informs us, that *Noſce te ipſum*, is one of the firſt leſſons a man ought to learn; it cannot ſurely be accounted an uſeleſs piece of knowledge for a man to be acquainted with the cauſe of his own being, or by what ſecret power of Nature it was, that coagulated milk (as a divine author calls it) came to be tranſubſtantiated into a human body. The explanation of this myſtery, and the unfolding the plaſtic power of Nature in the ſecret workings of generation and the formation of the ſeed in the womb, are the ſubject of the following Treatiſe; a ſubject

ſo neceſſary to be known to the female ſex, that many for want of this knowledge have periſhed with the fruit of their womb alſo; who, had they but underſtood the ſecrets of generation which are diſplayed in this Treatiſe, might have been ſtill living. For the ſake of ſuch, I have compiled this work, which I have divided into two parts, in the following manner:

1ſt, I will ſhew that Nature need not be aſhamed of her work: give a particular deſcription of the parts or organs of generation in man, and afterwards in woman: and then ſhew the uſe of theſe parts in the act of coition; and how poſitively Nature has adapted them to the end for which ſhe ordained them.

2dly, I will point out the prohibition or reſtriction, that the Creator of all things and the Lord of Nature has put upon man by the inſtitution of marriage; with the advantage it brings to mankind.

3dly, I ſhall ſhew when either ſex may enter into a married ſtate, and be fit to anſwer the end of their creation, &c.

4thly, I ſhall diſcourſe of virginity, and therein ſhew what it is, how it is known, by what means it may be loſt, how a perſon may know that it is ſo, &c.

In the ſecond part, which chiefly relates to married women, and the preſervation of the Fruit of the Womb, for the propagation of mankind to the world, I will ſhew,

1ſt, What conception is: what is pre-requiſite thereunto: how a woman may know when ſhe hath conceived, and whether a boy or girl.

2dly, Shew how a woman that has conceived ought to order herſelf.

3dly, Shew what a woman ought to do that is near the time of her delivery, and how ſhe ought to be aſſiſted.

4thly, I ſhall ſhew what are the obſtructions of conception, and therein diſcourſe largely about barrenneſs, and ſhew what are the cauſes and cure thereof both in men and women.

5thly, Direct midwives how they ſhall aſſiſt women in the time of their lying in: bringing ſeveral other material matters proper to be ſpoken of under each of theſe ſeveral heads; which will ſufficiently render this book what Ariſtotle deſigned it, his *Complete Maſter Piece*.

CHAP.

CHAP. I.

A particular Deſcription of the Parts and Inſtruments of Generation, both in Men and Women.

SECT. 1. *Of the Inſtruments of Generation in Men, with a particular Deſcription thereof.*

THOUGH the inſtruments, or parts of generation in all creatures, with reſpect to their outward form, are not perhaps the more comely, yet in compenſation of that, Nature has put upon them a more abundant and far greater honour than on other parts, in ordaining them to be the means by which every Species of Being is continued from one generation to another. And therefore, though a man or woman were, through the bounty of Nature, endowed with angelic countenances, and the moſt exact ſymmetry and proportion of parts that concurred together, to the making up of the moſt perfect beauty, yet, if they were defective in the inſtruments of generation, they would not for all their beauty be acceptable to either of the other ſex: becauſe they would be thereby rendered incapable of ſatisfying the natural propenſions which every one finds in himſelf. And therefore, ſince it is our duty to be acquainted with ourſelves, and to ſearch out the wonders of God in nature, I need not make any apology for anatomizing the ſecret parts of generation.

The organ of generation in man, Nature has placed obvious to the ſight, and is called the Yard; and becauſe hanging without the belly, is called the Penis, a pendendo. It is in form long, round, and on the upper ſide flattiſh, and conſiſts of ſkin, tendons, veins, arteries, and ſinews, being ſeated under the Oſſa Pubis, and ordained by Nature of a two fold work, viz. for the evacuating of urine, and conveying the ſeed into the Matrix. The urine which it evacuates is brought to it through the neck of the Verſica Urinariæ; and the ſeed which it conveys into the Matrix, is brought into it from the Viſiculæ Seminales. But to be more particular.

Beſides the common parts, as the cuticle, the ſkin, and the Membrana Carnoſa, it has ſeveral internal parts proper to it, of which number there are ſeven, viz.

The two nervous Bodies; the Septum; the Urethra; the Glands; the Muſcles; and the Veſſels: Of each of theſe diſtinctly, in the order I have placed them; and, firſt, of

The two nervous Bodies. Theſe are called ſo from their being ſurrounded with a thick, white, nervous membrane, though their inward ſubſtance is ſpongy, as conſiſting principally of veins, arteries, and nervous fibres, interwoven like a net. And nature has ſo ordered it, that when the nerves are filled with animal ſpirits, and the arteries with hot and ſpirituous blood, then the yard is diſtended, and becomes erect; when the flux of the ſpirit ceaſes, then the blood and the remaining ſpirits are abſorbed or ſucked up by the veins, and ſo the Penis becomes limber and flaggy.

2. The ſecond internal part is the Septum Lucidum, and this is in ſubſtance white and nervous, or ſinewy, and its office is to uphold the two lateral or ſide ligaments and the Urethra.

3. The third is the Urethra, which is only the channel by which both the ſeed and the urine are conveyed out; it is in ſubſtance ſoft and looſe, thick and ſinewy, like that of the ſide ligaments. It begins at the neck of the bladder, but ſprings not from thence, only is joined to it, and ſo proceeds to the glands. It has three holes in the beginning, the largeſt whereof is in the midſt, which receives the urine into it. The other two are ſmaller, receiving the ſeed from each ſeminal veſſel.

4. The fourth is the Glands, which is at the end of the Penis, covered with a very thin membrane, by reaſon of a Præputium or Foreſkin, which in ſome cover the top of the yard quite cloſe, in others not: and by it moving up and down in the act of copulation brings pleaſure both to the man and woman. The extreme part of the cover, which I call Præputium, and which is ſo called a præputando, from cutting off, as the Jews were commanded to cut it off on the eighth day. The ligament, by which it is faſtened to the glands, is called Frænum, or the Bridle.

5. The fifth thing is the Muſcles, and theſe are four in number, two being placed on each ſide. Theſe muſcles (which are inſtruments of voluntary motion, and without which

which no part of the body can move itſelf) conſiſts of fibrous fleſh to make up their body; of Nerves for the ſenſe; of Veins for their vital heat: and of a membrane or ſkin to knit them together, and to diſtinguiſh one muſcle from the other, and all of them from the fleſh. I have already ſaid there are two of them on each ſide: and I will now add, that one on each ſide is ſhorter and thicker, and that their uſe is to erect the yard, from whence they have obtained the name of Erectors. And having told you that two of them are thicker and ſhorter than the other, I need not tell you that the other two are longer and thinner; only I take notice, that the office of the two laſt is to dilate, or (if you will) open the lower parts of the Urethra, both for making water, and voiding the ſeed, and therefore are called Acceleratores.

6. The ſixth and laſt things are the Veſſels, which conſiſt of Veins, Nerves, and Arteries; of which ſome paſs by the ſkin, and are viſible to the eye, and others paſs more inwardly. For indeed the arteries are diſperſed through the body of the yard much more than the veins, and the diſperſion is contrariwiſe, the right artery being diſperſed to the left ſide, and the left to the right: as for the two nerves, the greater is beſtowed upon the muſcles and the body of the yard, and the leaſt upon the ſkin.

What I have hitherto ſaid relates to the yard, properly ſo called; but becauſe there are ſome Appendices belonging thereto, which, when wanted, render the yard of no uſe in the act of generation, it will alſo be neceſſary before I conclude this ſection, to ſay ſomething of them, I mean the ſtones, or teſticles, ſo called, becauſe they teſtify the perſon to be a man; their number and place is obvious; and as to their uſe, in them the blood brought thither by the ſpermatic arteries, is elaborated into ſeed. They have coats or coverings of two ſorts, proper and common; the common are two, and inveſt both the teſtes; the outermoſt of the common coats, conſiſt of the Cuticula, or true ſkin, called Scrotum, hanging out of the abdomen, like a purſe; the Membrana Carnoſa is the innermoſt. The proper coats are alſo two. the outer called Elithroidis or Vaginalis, the inner Albugiena: into the outer are inſerted the cremaſters: to the upper part of the teſtes are fixed the Epididymideſ, or Paraſtatæ, from whence ariſe the Vaſa Deferentia, or

Ejacu-

Ejaculatoria; which when they approach near the neck of the bladder, depoſite the ſeed into the Veſiculæ Seminales, which are each, or two or three of them, like a bunch of grapes, and emit the ſeed into the Urethra, in the act of copulation. Near thoſe are the Proſtatæ, which are about the bigneſs of a walnut, and join to the neck of the bladder. Theſe afford an oily, ſlippery, and ſalt humour, to beſmear the urethra, and thereby defend it from the acrimony of the ſeed and urine. Beſides theſe veſſels, by which the blood is conveyed to the teſtes, or of which the ſeed is made, and the arteriæ ſpermaticæ, there are alſo two; and ſo likewiſe are the veins which carry out the remaining blood, which are called venæ ſpermaticæ.

And thus man's nobler parts we ſee,
For ſuch the parts of generation be;
And they that carefully ſurvey will find
Each part is fitted for the uſe deſign'd:
The pureſt blood we find, if well we heed,
Is in the teſticles turn'd into ſeed.
Which by moſt proper channels is tranſmitted
Into the place by Nature for it fitted:
With higheſt ſenſe of pleaſure to excite
In amorous combatants the more delight.
For Nature does in this work deſign
Profit and pleaſure in one act to join.

SECT. II. *Of the ſecret Parts in Women.*

WOMAN, next to man, the nobleſt piece of this creation, is bone of his bone and fleſh of his fleſh, a ſort of ſecond ſelf: and in a married ſtate are accounted but one: As the poet ſays,

Man and wife are put one right
Canonical hermaphrodite.

It is therefore the ſecret parts of that curious piece of Nature that we are to lay open, which we will do with as much modeſty as will conſiſt with ſpeaking intelligibly.

The external parts, commonly called Pudenda (from the ſhamefacedneſs that is in women to have them ſeen) are the

the lips of the great orifice, which are viſible to the eye; and in thoſe that are grown, are covered with hair, and have pretty ſtore of ſpongy fat; their uſe being to keep the internal part from all annoyance by outward accidents.

Within theſe are the nymphæ, or wings, which preſent themſelves to the eye when the lips are ſevered, and conſiſt of ſoft and ſpongy fleſh, and the doubling of the ſkin placed at the ſides of the neck; they compaſs the clitoris, and both in form and colour reſemble the comb of a cock, looking freſh and red, and in the act of coition receive the penis or yard between them; beſides which they give paſſage both to the birth and urine. The uſe of the wings and knobs like myrtile berries, ſhutting the orifice and neck of the bladder, and by the ſwelling up, cauſe titulation and delight in thoſe parts, and alſo to obſtruct the involuntary paſſage of the urine.

The next thing is the clitoris, which is a ſinewy and hard part of the womb, replete with ſpungy and black matter within, in the ſame manner as the ſide ligaments of the yard; and indeed reſembles it in form, ſuffers erection and falling in the ſame manner, and both ſtirs up luſt, and gives delight in copulation; for without this, the fair ſex neither deſire nuptial embraces, nor have pleaſure in them, nor conceive by them; and according to the greatneſs or ſmallneſs of this part, they are more or leſs fond of mens embraces; ſo that it may properly be ſtiled the ſeat of luſt.

Blowing the coals of thoſe amourous fires,
Which youth and beauty to be quench'd requires.

And it may well be ſtiled ſo; for it is like a yard in ſituation, ſubſtance, compoſition, and erection, growing ſometimes out of the body two inches, but that happens not but upon ſome extraordinary accident. It conſiſts, as I have ſaid, of two ſpungy and ſkinny bodies, which, being a diſtinct original from the Os Pubis, the head of it being covered with a tender ſkin, having a hole like the yard of a man, but not through, in which, and the bigneſs of it, it only differs.

The next thing is the paſſage of the urine, which is under the clitoris, and above the neck of the womb, ſo that the urine of a woman comes not through the neck of the womb, neither is the paſſage common as in men, but particular, and by itſelf. This paſſage opens itſelf into the fiſſures to evacuate

evacuate the urine; for the ſecuring of which from cold, or any other inconveniency there is one of the four carbuncles, or fleſhy knobs, placed before it, which ſhuts up the paſſage. For theſe knobs, which are in number four, and in reſemblance like myrtle berries, are placed behind the wings before ſpoken of, quadrangularly, one againſt the other. Theſe are round in virgins, but hang flagging when virginity is loſt. 'Tis the uppermoſt of theſe that Nature has placed for the ſecuring the urinary paſſage from cold, and which is therefore largeſt and forked for that end.

The lips of the womb that next appear, cover the neck thereof, but being ſeparated diſcloſe it; and then two things are to be obſerved, and theſe are the neck itſelf, and the hymen, more properly called the clauſtrum virginale, which I ſhall treat more at large when I come to ſhew what virginity is. The neck of the womb I call the channel, is between the fore-mentioned knobs and the inner bone of the womb, which receives the man's yard like a ſheath; and that it may be dilated with the more eaſe and pleaſure in the act of coition, it is ſinewy and a little ſpungy; and there being in this concavity divers folds or orbicular plaits made by tunicles, which are wrinkled, it forms an expanded roſe that may be ſeen in virgins; but in thoſe that have uſed copulation, it comes by degrees to be extinguiſhed; ſo that the inner ſide of the neck of the womb appears ſmooth, and in old women it becomes more hard and griſly. But though this channel be ſinking down, wreathed, and crooked, yet is otherwiſe in the time of copulation: as alſo when women are under the monthly purgation, or in labour, being then very much extended, which is a great cauſe of their pains.

The Clauſtrum Virginale, commonly called the Hymen, is that which cloſes the neck of the womb; for between the duplicity of the two tunicles which conſtitute the neck of the womb, there are many veins and arteries running along that ariſe from the veſſels of both ſides of the thighs, and ſo paſs into the neck of the womb, being very large; and the reaſon thereof is, becauſe the neck of the womb requires to be filled with abundance of ſpirits to be dilated thereby, that it may the better take hold of the Penis, ſuch motions requiring great heat, which being more intenſe by the act of frication, conſumes a great deal of moiſture, in the

the ſupplying whereof, large veſſels are very neceſſary; hence it is that the neck of the womb in women of reaſonable ſtature, is eight inches in length. But there is alſo another cauſe of the largeneſs of theſe veſſels, becauſe their monthly purgations make their way through them; and, for this reaſon, women, though with child, often continue them: for though the womb be ſhut up, yet the paſſage in the neck of the womb, through which theſe veſſels paſs, is open. And therefore, as ſoon as you penetrate the pudendum, there may be ſeen two little pits or holes, and in which are contained an humour, which by being preſſed out in the time of coition, does greatly delight the fair ſex.

I ſhall, in the next place, proceed to a deſcription of the womb, which is the field of generation, without which nothing can be done. The parts we have been ſpeaking of being ordained by Nature to convey the ſeed to the womb, which being impregnated therewith by virtue of the plaſtic power of Nature, produces its own likeneſs.

The womb is ſituated in the lower parts of the hypogaſtrion, being joined to its neck, and is placed between the bladder and the ſtrait gut, ſo that it is kept from ſwaying or rolling; yet hath its liberty to ſtretch and dilate itſelf, and alſo to contract itſelf, according as Nature in that caſe diſpoſes it. It is of a round figure, ſomewhat like a gourd; leſſening and growing more acute towards one end, being knit together by its proper ligaments, and its neck joined by its own ſubſtance, and certain membranes that faſten it to the Os Sacrum, and the ſhare-bone. It is very different with reſpect to its largeneſs in women, eſpecially between ſuch as have had children, and thoſe that have had none. It is ſo thick in ſubſtance that it exceeds a thumb's breadth; and after conception, augments to a greater proportion, and to ſtrengthen it yet more, it is interwoven with fibres overthwart, both ſtrait and winding; and its proper veſſels are veins, arteries, and nerves: amongſt which there are two little veins which paſs from the ſpermatic veſſels to the bottom of the womb, and two bigger from the hypogaſtrics, touching both the bottom and the neck, the mouth of theſe veins piercing ſo far as the inward concavity.

The womb, beſides what I have already mentioned, hath two arteries on both ſides the ſpermatic veſſels and the hypogaſtrics which ſtill accompany the veins with ſundry little

little nerves knit and interwoven in the form of a net, which are alſo extended throughout even from the bottom to the pudenda themſelves, being ſo placed chiefly for the ſenſe of pleaſure, ſympathetically moving from the head and womb.

Here the reader ought to obſerve, that two ligaments hanging on either ſide of the womb from the ſhare-bone, piercing through the Peritonæum, and joining to the bone itſelf, cauſes the womb to be moveable, which upon divers occaſions either falls low or riſes; the neck of the womb is of a moſt exquiſite ſenſe, ſo that if it be at any time diſordered, either with a ſchirroſity, too much humour, moiſture, or relaxation, the womb is made ſubject to barrenneſs. In thoſe that are near their delivery, there uſually ſtays a moſt glutinous matter in the entrance, to facilitate the birth: for at that time the mouth of the womb is opened to ſuch a wideneſs, as is in proportion to the largeneſs of the child.

Under the parts belonging to generation in women, are alſo comprehended the preparatory or ſpermatic veſſels: the preparatory veſſels differ not in number from thoſe in man, for they are likewiſe four, two veſſels, and two arteries; their riſe and original is the ſame as in man, and the ſide of them are two arteries which grow from them, differing only in their ſize and manner of inſertion: the right vein iſſuing from the trunk of the hollow vein, and the left from the emulgent vein; and on the ſide of them are two arteries which grow from the arcuta. Theſe preparatory veſſels are ſhorter in women than in men, becauſe they have a ſhorter paſſage, and the ſtones of a woman lying within the belly, but thoſe of a man without; but to make amends for their ſhortneſs, they have far more writhings to and fro, in and out, than they have in men, that ſo the ſubſtance they carry may be the better prepared; neither are they united as they are in men, before they come to the ſtones, but are divided into two branches, whereof the greater only paſſeth to the ſtones, but the leſſer to the fæcundated egg, and this is properly called conception. And then, ſecondly, to cheriſh it, and nouriſh it, till Nature has framed the child, and brought it to perfection. Thirdly, It ſtrongly operates in ſending forth the birth, when its appointed time is accompliſhed, there dilating itſelf in an extraordinary manner: and ſo aptly removed from the

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ſenſes, that no injury accrues to it from thence, retaining in itſelf a ſtrength and power to operate and caſt forth the birth.

The uſe of the preparatory veſſels is to convey the blood to the teſticles, of which a part is ſpent in the nouriſhment of them, and the production of thoſe little bladders in all things reſembling eggs, thro' which the Vaſſa Preparentia run, and are obliterated in them. This conveyance of blood is by the arteries, but as for the veins, their office is to bring back what blood remains from the fore-mentioned uſe.

The veſſels of this kind are much ſhorter in women than men, by reaſon of their nearneſs to the teſticles; and yet that defect is more than made good by the many intricate windings to which they are ſubject; for in the middle way they divide themſelves into two branches of different magnitude; for one of them being bigger than the other, paſſes to the teſticles.

The teſticles in women are very uſeful; for where they are defective, generation work is quite ſpoiled; for though thoſe little bladders which are on their outward ſuperfices contain nothing of the ſeed, as the followers of Galea, &c. erroneouſly imagine, yet they contain ſeveral eggs (about the number of 20 in each teſticle) one of which, being impregnated by the moſt ſpiritious part of the man's ſeed in the act of coition, deſcends through the oviducts into the womb, where it is cheriſhed till it becomes a live child. The figure of theſe Ovæ or eggs, is not altogether round, but a little flat and depreſſed on the ſides, and in their lower part oval; but where the blood veſſels enter them, that is, in the upper part, they are more plain, having but one membrane about them, that the heat may have more eaſy acceſs to the womb, both to the nouriſhment of itſelf and of the infant therein. Let me further add, theſe ſpermatic veins receive the arteries as they paſs by the ſide of the womb, and thereby make a mixture of the vital and natural blood, that their work may be more perfect. The deferentia, or carrying veſſels, ſprung from the lower part of the ſtones, and are in colour white, ſubſtance ſinewy, and paſs not to the womb ſtrait, but wreathed; they proceed from the womb in two parts, reſembling horns, whence they are called the horns of the womb.

The ſtones of women are another part belonging to the inſtruments of generation: for ſuch things they alſo have as well as man, but they are alſo indifferently placed; neither is their bigneſs, temperament, ſubſtance, form, or covering the ſame. As to their place, it is the hollowneſs of the abdomen, reſting upon the muſcles of the loins, and ſo not pendulous, as in man. And that they are ſo placed is, that by contracting the heat, they may be the more fruitful, their office being to contain the ovum, or egg, which being impregnated by the ſeed of the man, is THAT from which the embryo is engendered. Theſe ſtones differ alſo from mens in their form; for, though they are ſmooth in men, they are uneven in women; being alſo depreſſed or flattiſh in them, though in men their form is more round and oval. They have alſo in women but one ſkin, whereas in men they have four; Nature having wiſely contrived to fortify theſe moſt againſt the injuries of the air, that are moſt expoſed to it; the ſtones of women being within, but thoſe of men without the belly. They differ alſo in their ſubſtance being much more ſoft than thoſe of men, and not ſo well compacted; their bigneſs and temperature differ, in that they are leſs and colder than thoſe of men. Some indeed will have their uſe to be the ſame as in men, but that is for want of judgement; for Ariſtotle and Scotus both affirm, that the women have no ſeed, and that their ſtones differ alſo in their uſe from thoſe of men; their uſe being, as I have already ſaid, to contain the egg which is to be impregnated by the ſeed of man.

It now only remains, that I ſay ſomething of the ejaculatory veſſels, which have two obſcure paſſages, one on either ſide, which in ſubſtance differ nothing from the ſpermatic veins. They riſe in one part from the bottom of the womb, but not reaching from the other extremity either to the ſtones, or any other part, are ſhut up, and incapable, adhering to the womb, as the colon doth to the blind gut, and winding half way about; though the ſtones are remote from them, and touch them not, yet they are tied to them by certain membranes reſembling the wings of a bat, through which certain veins and arteries paſſing from the end of the ſtones, may be ſaid here to have their paſſages proceeding from the corners of the womb to the teſticles, and are accounted the proper ligaments by which

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the teſticles and womb are united and ſtrongly knit together.

Thus the woman's ſecrets I have ſurvey'd,
And let them ſee how curiouſly they're made.
And that, tho' they of different ſexes be,
Yet in the whole they are the ſame as we.
For thoſe that have the ſtricteſt ſearchers been,
Find women are but men turn'd outſide in:
And men if they but caſt their eyes about,
May find they're women with their inſide out.

SECT. III. *Of the uſe and action of the ſeveral Parts in Women appropriated to Generation.*

I SHALL next take a ſurvey of the parts of generation both in men and women, and ſhew the uſe of action of theſe parts in the work of generation, which will excellently inform us that Nature has made nothing in vain.

The external parts in womens privities, or that which is moſt obvious to the eye at firſt, commonly called Pudendum, are deſigned by nature to cover the great orifice; Nature intending that orifice to receive the penis or yard in the act of coition, and alſo to give paſſage to the urine; and, at the time of birth, to the child. The uſe of the wings or knobs, like myrtle-berries, are for the ſecurity of the internal part, by ſhutting up the orifice and neck of the bladder, alſo for delight and pleaſure; for, by their ſwelling up, they cauſe titulation and delight in thoſe parts, being preſſed by the man's yard. Their uſe is likewiſe to obſtruct the involuntary paſſage of the urine.

The uſe and action of the clitoris in women, is like that of the penis or yard in men, that is erection; its extreme end being like that of the glands in the man, the ſeat of the greateſt pleaſure in the act of copulation, ſo is this of the clitoris in women, and therefore called, the ſweetneſs of love, and the fury of venery.

The action and uſe of the neck of the womb is the ſame with that of the penis, that is erection, which is occaſioned fundry ways; for, Firſt in copulation it is erected and made ſtrait from the paſſage of the penis to the womb. Secondly, Whilſt the paſſage is replete with ſpirits and vi-

tal blood, it becomes more ſtrait for embracing the penis. And, for the neceſſity of erection, there is a two-fold reaſon: one is, that if the neck of the womb was not erected, the yard would have no convenient paſſage to the womb. The other is, that it hinders any hurt or damage that might enſue through the violent concuſſion of the yard, during the time of copulation.

Then, as to the veſſels that paſs through the neck of the womb, their office is to replenish it with blood and ſpirits, that ſo as the moiſture conſumes through the heat contracted in copulation, it may ſtill by theſe veſſels be renewed. But their chief buſineſs is to convey nutriment to the womb.

Thus Nature nothing does in vain produce,
But fits each part for what's its proper uſe;
And though of different ſexes form'd we be,
Yet betwixt theſe there is that unity,
That we in nothing can a greater find,
Unleſs the ſoul that's to the body join'd:
And ſure in this Dame Nature's in the right,
The ſtricteſt union yields the moſt delight.

CHAP. I.

Of the Reſtriction laid upon Men in the uſe of carnal copulation, by the inſtitution of Marriage, with the advantage that it brings to mankind, and the proper time for it.

THOUGH the great architect of the world has been pleaſed to frame us of different ſexes, and, for the propagation and continuation of mankind, has indulged us the mutual embraces of each other, the deſire whereof by a powerful and ſecret inſtinct, is become natural to us, yet he would leave them to the law of the Creator, who has ordained, that every man ſhall have his own wife; and though ſince man, by ſinning againſt his Creator, hath fallen from his primitive purity, and has multiplied wives and concubines by which the firſt inſtitution is violated, and the groſſeſt affront done the divine law-giver: for the holy

Jeſus

Jeſus has told us, That in the beginning it was ſo; the marriage of one man to one woman: ſo that, as theſe conjugal delights cannot be enjoyed but in a married ſtate, ſo neither, in that ſtate, can they lawfully be participated of with more than one wife. And it is the breaking of this order that has filled the world with confuſion and debauchery, has brought deſeaſes on the body, conſumptions on eſtates, and eternal ruin to the ſoul, if not repented of. Let all thoſe, therefore, of either ſex, that have a deſire to enjoy the delights of mutual embraces, take care that they do it in a married ſtate, with their own wives or huſbands, or elſe it will become a curſe to them inſtead of a bleſſing. And, to that end, let them conſider what is due to the tranſgreſſors of his law, who hath ſaid, Thou ſhalt not commit adultery. Whatever is ſpoken of the venereal pleaſures, is ſpoken to thoſe who have, or may have, a right thereunto, by being in a married ſtate. For,

Who to forbidden pleaſures are inclin'd
Will find at laſt they leave a ſting behind.

SECT. II. *Of the Happineſs of the Married State.*

Matrimony, in the preſent age, is looked upon as a moſt inſupportable yoke:—Wives and huſbands are accounted the greateſt clogs and burdens to thoſe who give up the reins to their unbridled appetites. Notwithſtanding the preſent mode of thinking is againſt me, I doubt not of making it appear, that a married ſtate is the moſt happy condition (where perſons are equally yoked) that is to be enjoyed on this ſide heaven.

The Author and inſtitutor of marriage, and that firſt brought man and woman together, was no other than he that made them: even the great Lord of the univerſe, whoſe wiſdom being infinite, could not but know what condition was good for us; and his goodneſs being equal to his wiſdom, ſufficiently ſhews the end of this inſtitution was the happineſs of the creature he had made: and indeed man could not be happy without it: for he ſaw that it was not good that man ſhould be alone, and therefore made a woman to complete his happineſs, which was not perfect, whilſt he wanted ſuch a help mate for him.

The time of the inſtitution is alſo very remarkable: for it was whilſt Adam and his new made bride were cloathed with all that virgin purity and innocence with which they were created, before they had entertained the leaſt converſe with the tempter, or had given way to one diſordered thought; and yet could curiouſly ſurvey the ſeveral incomparable beauties and perfections of each other without ſin, and knew not what it was to luſt. It was at this time that the Creator united Adam in the holy bands of wedlock.

'Twas in paradiſe where the firſt match was made; and which could ſcarcely have been paradiſe without it; for paradiſe is known to be a place of pleaſure, wherein they were ſurrounded with the quinteſſence of all delights; where there was nothing wanting that might pleaſe the eye, charm the ear, or gratify the taſte; and yet Adam was not happy with all theſe pleaſing ſweets till he enjoyed his Eve; ſo that it was a married ſtate which completed his happineſs, and which was a paradiſe of paradiſe itſelf.

What an addition to happineſs a good wife makes! ſuch an one is the beſt companion in proſperity, and in adverſity the ſureſt friend; the greateſt aſſiſtance in buſineſs, the only lawful and comfortable means by which ſhe can have iſſue, and the great remedy againſt incontinence; and if we believe King Solomon, the greateſt honour unto him that has her. For he it is that tells us, She is a crown to her huſband. Surely theſe are not ſmall advantages!

If married perſons would be careful to do their reſpective duties, there would be but little complaining; nor would any condition in life be ſo agreeable as the married ſtate. How much more ſatisfaction a man receives in the embraces of a loving wife, than in the wanton dalliances of a deceitful harlot.

Thus does this ſection unto all relate,
The pleaſures that attend the married ſtate:
And ſhews it does with innocence conſiſt,
And that ſo many have thoſe pleaſures miſs'd,
It's their own fault they will no wiſer be,
As in this mirror they may plainly ſee.

SECT.

SECT. III. *Shewing at what age young men and virgins are capable of carnal copulation; and why they ſo much deſire it.*

I ſhall in the preſent ſection, make it my buſineſs to ſhew at what age young men and virgins are capable of the marriage-bed, which, becauſe ſo many deſire before they attend to it, it will be likewiſe neceſſary to ſhew the cauſes of their impetuous deſires.

The inclinations of virgins to marriage is to be known by many ſymptoms; for when they arrive to ripe age, which is about fourteen or fifteen, their natural purgations begin to flow; and then the blood, which no longer ſerves for the increaſe of their bodies, does, by its abounding, ſtir up their minds to venery: to which alſo external cauſes may incite them. For their ſpirits are briſk and inflamed when they arrive at this age, and their bodies are often more heated by their eating ſharp and ſalt things; and by ſpices, by which their deſire of venereal embraces becomes very great, and at ſome critical junctures almoſt inſupportable. The uſe of thoſe ſo much deſired enjoyments being denied to virgins, is often followed by very dangerous, and ſometimes diſmal conſequences, precipitating them into thoſe follies that may bring an indeliable ſtain on their families, or bring on themſelves the Green Sickneſs, or other diſeaſes. But when they are married, and thoſe deſires ſatisfied by their huſband, theſe diſtempers vaniſh, and their beauty returns more gay and lively than before. And this ſtrong inclination of theirs may be known by their eager gazing at men, and affecting their company, which ſufficiently demonſtrates that nature excites them to deſire coition. Nor is this the caſe with virgins only, but the ſame may be obſerved in young widows who cannot be ſatisfied without that due benevolence which they were wont to receive from their huſbands.

At fourteen years of age, commonly, the menſes begin to flow in virgins; at which time they are capable of conceiving, and therefore fit for marriage; though it would be much better, both for themſelves and their children, if they would not marry till eighteen or twenty; if they are healthy, of a ſtrong body, and uſe themſelves to temperance,

ance, they may continue bearing till upwards of 50, though generally they leave off bearing between 40 and 50: for the menſes flow a longer time in ſome than in others: but when they ceaſe, they ceaſe bearing. And therefore Sarah bearing Iſaac after it had ceaſed to be with her according to the cuſtom of women, may be well termed miraculous.

As for male youth, when they arrive at 16, or between that and 17, having much vital ſtrength, they may be capable of getting children; which ability, by the force and heat of procreating matter, conſtantly increaſe till 45, 56, 65, and then begins to flag, the ſeed by degrees becoming unfruitful, the natural ſpirits being extinguiſhed, and the heat dried up. Thus it is with them for the moſt part, but many times it falls out otherwiſe in particular inſtances: as once in Sweedland a man was married at a 100 years old to a bride of 30, and had many children by her; but he was a man of ſo good a conſtitution, and carried his age ſo well, that ſtrangers would not have gueſſed him at above 60. And in Campania, where the air is clear and temperate, it is uſual for men of 80 years old to marry young virgins, and have children by them: which ſhews that age in men hinders not procreation, unleſs they be exhauſted in their youth, and their yards ſhrivelled up.

If any aſk, why a woman is ſooner barren than a man? let ſuch know that the natural heat which is the cauſe of generation, is more predominate in men than women; for the monthly purgations of women ſhew them to be more moiſt than men, and ſo does alſo the ſoftneſs of their bodies. And the man exceeding her in native heat, concocts the humours into proper aliment, by the benefit whereof they are elaborated into ſeed: but women, though of a finer make, yet not being ſo ſtrong as men, their faculties are thereby hindered in their operation.

Thus nature to her children is ſo kind,
That early they thoſe inclinations find,
Which prompts them on to propagate mankind.
Hence 'tis a virgin her deſires can't ſmother,
But reſtleſs is till ſhe be made a mother.

Of

CHAP. III.

Of Virginity; what it is; how it may be known; by what means it may be loſt; and how a perſon may know that it is ſo.

SECT. I. *Of Virginity, and wherein it conſiſts.*

HAVING treated of the deſire young men and virgins have to mutual embraces, and at what age they are fit for them; I have alſo ſhewn that thoſe pleaſures are only lawful to be enjoyed in a married ſtate; and have alſo acquainted my reader with the advantage of ſuch a condition. But ſince the deſires of many after mutual embraces are ſo impetuous, that not having an opportunity to enter into a married ſtate, they have anticipated the pleaſures of matrimony, and loſt their virginity before hand: and yet, perhaps, have afterwards pretended to bring their virginity to a marriage bed, by which means many an honeſt man has been deceived, and meretricious women eſcaped with impunity; and, on the other hand, ſome virtuous young virgins, that have indeed come ſuch unto their huſband's beds, have been accuſed by the ignorance and incredulity of their huſbands, to have loſt their virginity before hand, when there has been no ſuch matter: therefore, to do right in this caſe to both parties, my deſign in this chapter is to ſhew what virginity is, and wherein it conſiſts; how many ways it may be loſt; and how a man may know whether it be loſt or not: that ſo women may not be wrongfully cenſured, or men impoſed upon.

Virginity, untouch'd and taintleſs, is the boaſt and pride of the fair ſex: but they generally commend it to put it off. For, as good as it is, they care not how ſoon they are honeſtly rid of it. And I think they are in the right of it, for if kept it grows uſeleſs, or at leaſt loſes ſo much of its value; a ſtale virgin (if ſuch a thing there be) being looked upon like an old Almanack, out of date.——But to ſpeak to the purpoſe, virginity is the chief, the beſt, the prime of any thing, and is properly the integrity of a woman's privities, not violated by man, or not known by him; it being the

the diſtinguiſhing characteriſtic of a virgin, that ſhe has not known man.

To make this more plain, I muſt here obſerve, that there is in maids, in the neck of the womb, a membranous production called the Hymen, which is like the bud of a roſe half blown, and this is broken in the firſt act of copulation with man: and hence came the word Defloro, to deflower; whence the taking of virginity is called the deflowering of a virgin: for when the roſe bud is expanded, virginity is loſt. Certain it is there is in the firſt act of copulation ſomething that cauſes pain and bleedings; which is an evident ſign of virginity. But what this is, authors are not agreed on. Some ſay it is a nervous membrane, or thin ſkin with ſmall veins, that bleed at the firſt penetration of the yard. Others ſay, it is the four caruncles, knobs, or little buds like myrtle berries, which are plump and full in virgins, but hang looſe or flaggy in thoſe who have uſed copulation, being preſſed by the yard. Some have obſerved a fleſhy circle about the Nymphæ, or neck of the womb, with little obſcure veins, which make the membrane not to be nervous, but fleſhy. But ſetting aſide conjectures, the Hymen, or Clauſtrum Virginale, is a thin membrane interwoven with fleſhy fibres, and endowed with many little arteries and veins ſpread acroſs the paſſage of the Vagina, behind the inſertion of the bladder, with a hole in the midſt for the menſes to flow, ſo big, that it will admit of the top of one's little finger. This is that which is called the Zone, or girdle of chaſtity: and, where it is found in the form deſcribed, it is a certain note of virginity; but, in the firſt act of copulation, it is neceſſarily violated; and then it is generally accompanied with an effuſion of blood, which blood is called the flower of virginity; and, when once it is broke, it never cloſes again.

Sect. II. *How Virginity may be loſt, &c.*

In the former ſection, I have endeavoured to ſhew in what virginity conſiſts, and that it is loſt by the firſt penetration of the yard, which may be eaſily known by its being attended with an effuſion of blood upon the rupture of the Hymenean membrane, or Clauſtrum Virginale; but I muſt do the fair ſex this juſtice to let the world know, that although wherever this is found, it be an undoubted token of

of virginity, yet it will not follow, that, where this token is wanting, virginity is deflowered and loſt; for the Hymen may be corroded by acrimonious and fretting humours flowing through it with the Menſes, or it may be violated by the inverſion or falling out of the Uterus, or of the Vagina or ſheath, which ſometimes happens even to virgins: or (which I would have all virgins to beware of, for the preſervation of their credit, and preventing of all cauſes of ſuſpicion) perhaps the indiſcreet or unwary bride had her Menſes but a day or two before, in which caſe, both the Hymen and the inner wrinkled membranes of the Vagina are flaggy, weak, and relaxed, ſo that no ſuch rupture, and of conſequence, no ſuch effuſion, may happen. It were better, therefore, upon this account, that when virgins are about to marry, they would fix their wedding-day a leaſt ſix or ſeven days after the Menſes have done flowing.

But farther, to ſome Nature hath given greater deſires after enjoyment than to others, and to ſuch, though they abſtain from enjoyment, yet ſo great is their luſt and deſire after it, that they may break the Hymen or Clauſtrum Virginale: and ſometimes it itches to that degree, that they put in their finger, and ſo break it. Sometimes the midwives break it in the birth; and ſometimes it is done by the ſtoppage of the urine, coughing, violent ſtraining, or ſneezing: ſo that, if there be no bleeding at the firſt penetration of the huſband, it is not always a ſign of unchaſtity, or that another has been there before him, ſeeing that the Hymenean membrane may be broke ſo many other ways: but where bleeding does follow, it is an evident and undeniable token that the perſon was a virgin, and had never known man before. And indeed, though the Hymen (or membrane ſo called) may be broke all theſe ways I have mentioned, yet it ſo rarely happens to be broke any other way, that Leo Africanus makes mention of it as a general cuſtom of the Africans at their weddings, that, after the marriage ceremony is over, the bride and bridegroom are ſhut up in a chamber, while the wedding dinner is preparing: an ancient woman ſtands at the door to receive from the bridegroom a ſheet, having the bloody tokens of the wife's virginity, which ſhe ſhews in triumph to all the gueſts, and then they feaſt with joy; but if there is no blood ſeen, the bride is to be ſent home again to her friends with diſgrace,

diſgrace, and the diſappointed gueſts go home without their dinner.

There are others, that make the ſtraitneſs of the privities a ſign of virginity, but this is a very uncertain rule; for this depends much upon the age, habit of body, and other circumſtances. But, though it muſt indeed be granted, that women, who have uſed carnal copulation, are not ſo ſtrait as virgins, yet this cannot be a certain argument of virginity, becauſe, after often repeated acts of venery, the privities may be made ſo ſtrait by the uſe of aſtringent medicines, that thoſe who truſt to this ſign, may ſometimes take a whore inſtead of a virgin. And I have heard of a courtezan, who, though ſhe had been married, gave herſelf out to be a virgin, and, by the help of a bath of comfrey roots, deceived thoſe with whom ſhe had to do.

Others take upon them to be judges of loſt virginity, by milk in the breaſt; but ſuch, perhaps, are ignorant that there is a two-fold milk: the one of virgins, the other of ſuch as have conceived or brought forth children: that of virgins is a malady contrary to nature, but the other is natural. The firſt is made of blood from the womb, and ſo goes to the breaſts, being nothing but a ſuperfluous nouriſhment that is turned into milk by the faculty of the breaſts, without the knowledge of man: the other is only where there is a child either in the womb or born. Yet the milk differs very much, both in reſpect to the blood, and diverſity of veins that brings it to the breaſts; and though both are white, yet that of virgins is thinner, and leſs in quantity, neither is it ſo ſweet. Therefore, if virgins happen to have ſuch milk, they are not for that reaſon to be unchaſte.

Upon the whole matter, the ſum of what I have ſaid upon this head of virginity terminates in this; that when a man is married, and finds the tokens of his wife's virginity upon the firſt act of copulation, he has all the reaſon in the world to believe her ſuch, and to reſt ſatisfied that he has married a virgin: but if, on the contrary, he finds them not, then he has no reaſon to think her devirginated, if he finds her otherwiſe ſober and modeſt; ſeeing the Hymen or Clauſtrum Virginale may be broken ſo many other ways, and yet the woman be both chaſte and virtuous. Only let me caution virgins to take all imaginable care to keep their virgin Zone entire, that ſo, when they marry, they may be

ſuch

ſuch as the great Cæſar wiſhed his wife to be, that is, not only without fault, but without ſuſpicion alſo.

Thus have I virgin innocence ſurvey'd,
And ſhew'd the difference 'twixt wife and maid,
And that their chaſtity they need not fear,
Whoſe virgin tokens plainly do appear.
Nor cenſure thoſe in whom they do not ſo,
Unleſs the contrary they plainly know;
For they may yet unſpotted virgins be,
Altho' their virgin tokens none can ſee.

PART II.

The Secrets of Nature diſplayed in the Production of Man.

CHAP. I.

What Conception is; what is pre-requiſite thereto; how a woman may know whether ſhe hath conceived, and whether a boy or girl.

SECT. I. *Of Conception, what it is, &c.*

HAVING, in the firſt part of this work, deſcribed the inſtruments of generation in both ſexes, and the uſe for which thoſe inſtruments were intended by nature, I ſhall, in the part before me, proceed to ſhew what conception is; the ſigns and tokens thereof; and what are the pre-requiſites thereunto: for when once a woman has conceived, the work of generation is begun, and time, with nature's help, will perfect the work.

Now in conception, that which is firſt to be regarded, and without which it cannot be, is the ſeed of the man, that being the active principle, or efficient cauſe of the fœtus, the matter of which is arterial blood and animal ſpirits, which are elaborated into ſeed in the teſticles, and from

thence by proper veſſels conveyed into the yard, and in the act of copulation, it is injected or emitted into the womb. The next thing is the paſſive principle of the fœtus (for there muſt be both in order to conception) and this is an ovum or egg, impregnated by the man's ſeed; or being conveyed to it, the womb cloſes up, that no air may enter therein, but the impregnated ovum may ſwell into a fœtus. This is that which is truly and properly conception, and the pre-requiſites thereunto I ſhall make the ſubject of the next ſection.

SECT. II. *Of the pre-requiſites to Conception.*

I have ſhewn in the former ſection, that there are two things to be regarded chiefly in conception, to wit, the active and paſſive principle. This in part ſhews, that difference of ſexes is a pre-requiſite to conception. So nature has ordained, there muſt be a proper vehicle for the active principle to be injected thereinto, and there muſt alſo be a paſſive principle to be impregnated thereby; ſo the woman has no active principle to impregnate, and therefore, without different ſexes, there can be no conception.

But this is not all: for it is not enough that there be different ſexes, but theſe different ſexes muſt unite, and there muſt be coition, in order to conception; and it is coition, or the mutual embraces of both ſexes, which nature has made ſo deſirable to each other; which, when authoriſed in the way that heaven has ordained, there is no need of raviſhing; for the fair bride will quickly meet her bridegroom with equal vigour. But ſince in that there may be overdoing, and ſuch errors committed by their giving way to the impetuoſity of their deſires, as may be prejudicial to conception, it will not be amiſs to give ſome directions to make this operation the more effectual.

SECT. III. *A Word of Advice to both Sexes; or Directions reſpecting the Act of Coition, or carnal Copulation.*

Though there are ſome that deſire not to have children, and yet are very fond of nocturnal embraces, to whom theſe directions will be no way acceptible, becauſe it may probably

probably produce thoſe effects which they had rather be without; yet I doubt not but the generality of both ſexes, when in a married ſtate, have ſuch a deſire to produce the fair image of themſelves, that nothing can be more welcome to them than thoſe directions that may make their mutual embraces moſt effectual to that end: and therefore let none think it ſtrange that we pretend to give directions for the promoting that which nature itſelf teacheth all to perform; ſince 'tis no ſoliciſm for art to be a handmaid to nature, and to aſſiſt her in her nobleſt operations. Neither is it the bare performing of that act which we here direct to, but the performing it ſo as to make conducive unto the work of generation. And ſince this act is the foundation of generation, and without which it cannot be, ſome care ought to be taken, and, conſequently, ſome advice given, how to perform it well: and therein I am ſure the proverb is on our ſide, which tells us that what is once well done is twice done. But yet what we ſhall advance on this nice ſubject, ſhall be offered with that caution, as not to give offence to the chaſteſt ear, nor put the fair ſex to the trouble of blushing. What I ſhall offer will conſiſt of two parts: Firſt, ſomething previous to it; and, ſecondly, ſomething conſequential to it.

For the firſt, When married perſons deſign to follow the propenſions of nature for the production of the fair image of themſelves, let every thing that looks like care and buſineſs be baniſhed from their thoughts, for all ſuch things are enemies to Venus; and let their animal and vital ſpirits be powerfully exhilerated by ſome briſk and generous reſtoratives; and let them, to invigorate their fancies, ſurvey the lovely beauties of each other, and bear the bright ideas of them in their minds; and if it happens, that inſtead of beauty there is any thing that looks like imperfection or deformity, (for nature is not alike bountiful to all) let them be covered over with a veil of darkneſs and oblivion. And ſince the utmoſt intention of deſire is required in this act, it may not be amiſs for the bridegroom, for the more eager heightening of his joy, to delineate the ſcene of their approaching happineſs to his fair languiſhing bride, in ſome ſuch amorous rapture as this.

Now, my fair bride, now will I ſtorm the mint
Of love and joy, and rifle all that's in't.

Now my infranchis'd hand on ev'ry ſide,
Shall o'er thy naked poliſh'd ivory ſlide.
Freely ſhall now my longing eyes behold,
Thy bared ſnow, and thy undrained gold:
Nor curtain now, tho' of tranſparent lawn,
Shall be before thy virgin treaſure drawn.
I will enjoy thee now, my faireſt; come,
And fly with me to love's elyſium;
My rudder with thy bold hand, like a try'd
And ſkilful pilot, thou ſhalt ſteer, and guide
My bark in love's dark channel, where it ſhall
Dance, as the bounding waves do riſe and fall.
Whilſt my tall pinnace in the Cyprian ſtreight,
Rides ſafe at anchor, and unlades the freight.

Having by theſe, and other amorous acts (which love can better dictate than my pen) wound up your fancies to the higheſt ardour and deſires,

Perform thoſe rites nature and love requires,
'Till you have quench'd each others am'rous fires.

When the act of coition is over, and the bridegroom has done what nature prompted him to do, he ought to take care not to withdraw too precipitately from the field of love, leſt he ſhould, by ſo doing, let the cold into the womb, which might be of dangerous conſequence. But when he has given time for the matrix to cloſe up, he may withdraw, and leave the bride to her repoſe, which ought to be with all the calmneſs poſſible, betaking herſelf to reſt on the right ſide, and not removing, without great occaſion, till ſhe has taken her firſt ſleep. Coughing and ſneezing, if poſſible, ſhould be avoided, or any thing that agitates or cauſes a motion of the body. Theſe amorous engagements ſhould not be often repeated till the conception is confirmed. And it may not be amiſs to remind the bridegroom, that the fair laſts all the year, and that he ſhould be careful not to ſpend his ſtock laviſhly, as women in general, are better pleaſed in having a thing once well done, than often ill done.

SECT. IV. *How a Woman may know when ſhe has conceived.*

After the means made uſe of in order to conception, according to the directions given before, there is reaſon to expect

expect that conception ſhould follow: but as things do not always ſucceed according to deſire, ſo therefore conception does not always follow upon coition. For there are many women, eſpecially thoſe newly married, who know not whether they have conceived or not, after coition; which, if they were aſſured of, they might and would avoid ſeveral inconveniences which they now run upon. For, when after conception a woman finds an alteration in herſelf, and yet knows not from whence it ariſes, ſhe is apt to run to the doctor, and inquires of him what is the matter, who not knowing that ſhe is with child, gives her a ſtrong potion, which certainly deſtroys the conception. There are others, who, out of fooliſh baſhful coyneſs, though they know that they have conceived, yet will not confeſs it, that they may be inſtructed how to order themſelves accordingly. Thoſe that are coy may learn in time to be wiſe; and for the ſake of thoſe that are ignorant, I ſhall ſet down the ſigns of conception, that women may know thereby whether they have conceived or not.

If a woman hath conceived, the vein under her eye will be ſwelled, i. e. under the lower eye lid; the vein in the eyes appearing clearly, and the eyes ſomething diſcoloured: if the woman hath not her terms upon her, nor hath watched the night before, there is a certain ſign of her having conceived; and this appears moſt plainly juſt upon the conception, and holds for the firſt two months after.

Stop the urine of the woman cloſe in a glaſs or bottle three days, at the expiration of which time ſtrain it through a linen rag: if you perceive ſmall living creatures in it, you may inſtantly conclude that ſhe hath conceived; for the urine, which was before part of her own ſubſtance, will be generative as well as its miſtreſs.

A coldneſs and chilneſs of the outward parts after copulation, ſhews a woman to have conceived, the heat being retired to make the conception; and then the veins of the breaſts are more clearly ſeen than they were before. The tops of the nipples look redder than formerly; the body is weakened and the face diſcoloured; the belly waxeth very fat, becauſe the womb cloſeth itſelf together to nouriſh and cheriſh the ſeed. If ſhe drinks cold water, a coldneſs is felt in the breaſt; ſhe has alſo loſs of appetite, ſour belchings, and exceeding weakneſs of the ſtomach: the breaſts begin

to ſwell and wax hard, not without pain or ſoreneſs; wringing or gripping pains like the cramp happens in the belly above the navel; alſo divers appetites and longings are engendered. The veins of the eyes are alſo clearly ſeen, and the eyes ſeem ſomething diſcoloured, as a looking-glaſs will ſhew. The excrements of the guts are voided painfully, becauſe the womb ſwelling, thruſteth the right gut together: likewiſe let her take a green nettle, and put it into her urine, cover it cloſely and let it remain all night; if ſhe is with child it will be full of red ſpots on the next morning, if ſhe is not with child it will be blackiſh.

By theſe experiments, ſome of which never fail, a woman may know whether ſhe has conceived or not, and to regulate herſelf accordingly. For

When women once with child conceived are,
They of themſelves ſhould take eſpecial care.

SECT. V. *How to know whether a Woman be conceived of a male or female Child.*

In the preſent ſection, I ſhall endeavour to gratify the curioſity of many perſons who are very deſirous to know whether they are conceived of a male or female. For the ſatisfaction of ſuch, I ſhall give the ſign of a male child being conceived; and the reverſe thereof, that of a female.

It is then a ſign of a male child when the woman feels it firſt on the right ſide; for male children lie always on that ſide of the womb; the woman alſo when riſing from her chair, doth ſooner ſtay herſelf upon the right hand than on the left. Alſo the belly lies rounder and higher than when it is a female. The colour of the woman is not ſo ſwarthy, but more clear than when it is a girl. The right ſide is likewiſe more plump and harder than the left, the right nipple redder. She likewiſe breeds a boy eaſier and with leſs pain than a girl, and carries her burthen not ſo heavily, but is more nimble and ſtirring.

I will only, as to this, add the following experiments, which I never knew to fail. If the circle under the woman's eyes, which is of a wan blue colour, be more apparent under the right eye, and that moſt diſcoloured, ſhe is with child of a boy, if the mark be moſt apparent in her left eye

eye, ſhe is with child of a girl.—The other is, let her drop a drop of her milk in a baſon of fair water, if it ſinks to the bottom as it drops in, round in a drop, it is a girl ſhe is with child of; for if it be a boy it will ſpread and ſwim at top. This I have often tried, and it never failed.

For whether male or female child it be
You have conceived, by theſe rules you'll ſee.

CHAP. II.

SECT. I. *How a Woman ſhould order herſelf in order to conception.*

I AM very well ſatisfied that many women deſire copulation, not from any delight or ſatisfaction they take therein, more than as it is the means appointed by him that bids us increaſe and multiply, for the obtaining of children and the propagation of mankind. And though ſeveral make uſe of coition to obtain that end, yet we find by experience, that in many it does not ſucceed, becauſe they order not themſelves as they ought to do; for though it muſt be granted, that all our endeavours depend upon the divine bleſſing; yet if we are wanting in any thing to ourſelves, how can we expect that bleſſing to ſucceed our endeavours. My buſineſs therefore in this ſection ſhall be to ſhew how women that deſire to have children ſhould order themſelves.

Firſt, Women that are deſirous to have children muſt, in order thereunto, give themſelves to moderate exerciſe; for want of exerciſe and idleneſs are very great enemies to the work of generation, and indeed are enemies both to ſoul and body. Thoſe that do give themſelves the trouble to obſerve it, will find thoſe city dames that live high, and do nothing, ſeldom have children, or if they have, they ſeldom live; whereas thoſe poor women that accuſtom themſelves to labour have many children, and thoſe ſtrong and luſty. Nor need we wonder at it if we conſider the benefit that comes by moderate exerciſe and labour; for it opens the pores, quickens the ſpirits, ſtirs up the natural heat, ſtrengthens the body, ſenſes and ſpirits, comforts the limbs, and helps nature in all her exerciſes, of which procreation of children is none of the leaſt.

Secondly,

Secondly, Women, in order to conception, ſhould avoid all manner of diſcontent, and the occaſion of it; for diſcontent is a great enemy to conception; and it ſo diſpirits either man or woman, that it hinders them from putting forth that vigour which ought to be exerted in the act of coition. When, on the contrary, content and ſatisfaction of mind dilate the heart and arteries, whereby the vital blood and ſpirits are freely diſtributed throughout the body; and thence ariſe ſuch affections as pleaſe, recreate, and refreſh the nature of man; as hope, joy, love, gladneſs and mirth. Nor does it only comfort and ſtrengthen the body, but alſo the operation and imagination of the mind: which is ſo much the more neceſſary; inſomuch as the imagination of the mother works forcibly upon the conception of the child. Women, therefore, ought to take great care that their imagination be pure and clear, that their child may be well formed.

Thirdly, Women ought to take care to keep the womb in good order; and to ſee that the Menſes come down as they ought to do: for if they are diſcoloured, they are out of order. But if the blood comes down pure, then the woman will be very prone to conceive with child, eſpecially if they uſe copulation in two or three days after the monthly terms are ſtayed.

Fourthly, A woman that would conceive ſhould obſerve that ſhe does not uſe the act of coition too often; for ſatiety gluts the womb, and renders it unfit for its office.

There are two things that demonſtrate this: i. e. that common whores (who often uſe copulation) have never, or very rarely any children: for the graſs ſeldom grows in a path that is commonly trodden in. The other is, that women, whoſe huſbands have been long abſent, do, after copulation with them again, conceive very quickly.

Fifthly, Care ſhould be taken that the time of copulation be convenient, that there may be no fear of ſurpriſe: for fear hinders conception. And then it were beſt alſo that the deſire of copulation be natural, and not ſtirred up by provocation: and if it be natural, the greater the woman's deſire of copulation is, the more likely ſhe is to conceive.

I will add no more, but what ſome authors report, that a loadſtone carried about the woman, not only cauſeth conception but concord between man and wife; if it be true, I would

would have no married woman go without one, both for her own and huſband's quiet.

Let all the fair who would have children, from
Their ſoft embraces, read what's here laid down;
Thoſe that to exerciſe themſelves incline,
And in their love to be content deſign.
Who have their monthly terms in order flow,
And regulate them if they do not ſo;
That loves embraces moderately uſe,
And to enjoy them a fit ſeaſon chuſe:
Theſe may content with what they've done remain,
And need not fear their wiſhes to obtain.

SECT. II. *What a Woman ought to obſerve after conception.*

After a woman has conceived, or has reaſon to think ſo, ſhe ought to be very careful of herſelf, leſt ſhe ſhould do any thing that might hinder nature in her operation. For in the firſt two months after conception, women are very ſubject to miſcarriages, becauſe then the ligaments are weak, and ſoon broken. To prevent this, let the woman every morning drink a draught of ſage ale, and it will do her abundance of good. And if ſigns of abortion or miſcarriage appears, let her lay a toaſt dipped in tent (in caſe muſcadale cannot be gotten) to the navel, for this is very good. Or let her take a little garden tanſy, and having bruiſed it, ſprinkle it with muſcadale, and apply it to the navel, and ſhe will find it much better. Alſo tea infuſed in ale, like ſage ale, and a draught drank every morning, is moſt excellent for ſuch women as are ſubject to miſcarriages. Alſo take juice of tanſy, clarify it, and boil it up into a ſyrup, with twice its weight in ſugar, and let a woman take a ſpoonful or two of it in ſuch caſes, and it will be an excellent preſervative againſt miſcarriages. Alſo if ſhe can, let her be where the air is temperate. Let her ſleep be moderate; let her alſo avoid all watching and immoderate exerciſe, as alſo diſturbing paſſions, loud clamours, and filthy ſmells; and let her abſtain from all things which may provoke either urine or the courſes: and alſo from all ſharp and windy meats; and let a moderate diet be obſerved. If the excrements of the guts be retained, lenify the belly with clyſters made of the decoction

decoction of mallows and violets, with ſugar and common oil; or make broth of borage, bugloſs, beets, mallows, and take therein a little manna; but, on the contrary, if ſhe be troubled with a looſeneſs of the belly, let it not be ſtopped without the judgment of a phyſician; for that matter all uterine fluxes have a malignant quality, and muſt be evacuated and removed before the flux be ſtayed.

CHAP. III.

How a Child lieth, and how it groweth up in the Womb of the Mother after conception.

SECT. I. *How the Child is formed in the Womb after conception.*

AS to the formation of the child, it is to be noted, that after coition the ſeed lies warm in the womb for ſix days without any viſible alteration, only the womb cloſes up itſelf to prevent its iſſuing forth again, and for the ſecuring it from any cold; and all this time it looks like butter, or coagulated milk: And it would be very neceſſary for her who has conceived to forbear the embraces of her huſband all the time, leaſt the conception ſhould be ſpoiled. In three days after it is altered from the quality of thick milk or butter, and it becomes blood, or at leaſt reſembles it in colour, nature having now begun to work upon it. In the next ſix days following, that blood begins to be united into one body, grows hard, and becomes a little quantity, and to appear a round lump. And as the firſt creation of the earth was void, and without form, ſo in this creating work of divine power in the womb, this ſhapeleſs embryo lies like the firſt maſs. But in two days after, the principal members are formed by the plaſtic power of nature and theſe principal members are four in number, viz. The heart, the brain, the liver, and the teſticles or ſtones. Three days after the other members are formed, and are diſtinguiſhed from the ſhoulders to the knees; and the heart, liver, and ſtones, with their appurtenances, grow bigger and bigger. Four days after that, the ſeveral members of the whole body appears, and as nature requires, they conjunctly and ſeparately do receive their perfection. And ſo in the appointed

ed time, the whole creation hath that eſſence which it ought to have in the perfection of it, receiving from God a living ſoul, therewith putting into his noſtrils the breath of life. Thus have I ſhewn the whole operations of nature in the formation of the child in the womb, according to the energy given it by the divine Creator, Maker and Upholder of all things both in heaven and earth.

By ſome others more briefly, but to the ſame purpoſe, the forming of the child in the womb of its mother is thus deſcribed: three days in the milk, three in the blood, twelve days from the fleſh, and eighteen the members, and forty days afterwards the child is inſpired with life, being endowed with an immortal living ſoul.

SECT. II. *Of the Manner of the Child's lying in the Womb from the Conception to the Birth.*

I come now to ſhew in what manner the child lies in the womb of its mother, whilſt it is confined in the dark receſſes; firſt giving the reader the teſtimony of two or three of the moſt learned on that head.

The learned Hippocrates affirms, that the child, as he is placed in the womb, hath his hands upon his knees, and his head bent to his feet; ſo that he lies round together, his hands upon his knees, and his face between them; ſo that each eye touches each thumb, and his noſe betwixt his knees. And of the ſame opinion in this matter was Bartholinus the younger. Columbus is of opinion that the figure of the child in the womb is round, the right arm bowed, the fingers thereof under the ear, and above the neck, the head bowed, ſo that the chin toucheth the breaſt, the left arm bowed above both breaſt and face, and propped up by the bending of the right elbow: the legs are lifted upwards, the right of which is ſo liſted up that the thigh toucheth the belly, the knees the navel, the heel toucheth the left buttock, and the foot is turned back and covereth the ſecrets; the left thigh toucheth the belly, the knees the navel, the heal toucheth the left buttock, and the foot is turned back, and covereth the ſecrets; the left thigh toucheth the belly, and the leg lifted up to the breaſt, the back lying outwards.

Thus the reader may ſee how authors differ herein; but this

this ought to be noted, that different poſitions which the child has been ſeen in, hath given occaſion to the different opinions of authors. For when the woman is young with child, the embryo, is always found of a round figure, a little oblong, having the ſpine moderately turned inwards, the thighs folded and a little raiſed, to which the legs are joined; that the heels toucheth the buttocks, the arms bending, and the hands placed upon the knees, towards which the head is inclined forwards; ſo that the chin touches the breaſt: the ſpine of the back is at that time placed towards the mother's, the head uppermoſt, the hands forwards, and the feet downwards, and proportionable to its growth it extends its members by little and little, which were exactly formed in the firſt month. In this poſture it uſually keeps till the ſeventh or eight month, and then by a natural propenſity and diſpoſition of the upper parts of the body, the head is turned downwards towards the inward orifice of the womb, tumbling as it were over its head; ſo that the feet are uppermoſt, and the face towards the mother's great gut. And this turning of the infant in this manner with his head downwards, towards the latter end of a woman's reckoning, is ſo ordered of nature, that it may be the better diſpoſed for the birth. The knowledge of theſe things being ſo eſſential to the practice of a midwife, I could not omit them.

CHAP. IV.

Of the obſtruction of Conception; with the cauſe and cure of barrenneſs, and the ſigns of inſufficiency both in Men and Women.

BEFORE I proceed any further, it is highly neceſſary that I treat of the obſtructions of conception: which naturally leads me to treat of barrenneſs, the grand obſtruction of conception.

SECT. I. *Of Barrenneſs.*

Barrenneſs is a natural and accidental defect, which hinders conception: for that which hinders conception cauſeth barrenneſs. There are ſeveral cauſes why conception may be

be hindered; as too much heat or cold dries up the ſeed, and makes it corrupt; this extinguiſhes the life of the ſeed, and that making it wateriſh, and unfit for generation. It may be cauſed alſo by the ſtoppage of the overflowing of the courſes, and by ſwellings, ulcers, or inflammations of the womb, or by an excreſcence of fleſh growing about the mouth of the Matrix, whereby the ſeed is hindered from being injected into the womb; and want of love in the perſons copulating may alſo hinder conception, as is apparent from thoſe women that are deflowered againſt their will; no conception following any forced copulation.

And here let me caution parents againſt one thing that often cauſeth barrenneſs, which might eaſily be prevented; and that is, againſt letting virgins blood in the arm before their courſes come down: theſe come down in virgins uſually in the fourteenth year of their age, ſeldom before the thirteenth, but never before the twelfth. Now, becauſe uſually young virgins are out of order before they firſt break down, the mother goes with her to the doctor, who finding that fulneſs of blood is the occaſion of her illneſs, orders her to be let blood in the arm; upon which ſhe becomes well for a time, the ſuperfluous blood being taken away: and this remedy, which is worſe than the diſeaſe, being repeated four or five times, the blood comes not down at all to the womb, as it doth in other women, but dries up, and is for ever barren; whereas, had ſhe been let blood in the foot, it would have brought the blood downwards, and ſo have provoked the terms, and prevented the miſchief.

Another cauſe of barrenneſs is for want of convenient moderate equality, which the woman ought to have with the man; as if he be hot, ſhe muſt be cold; if he be dry, ſhe moiſt; but if they both are dry, or both of a moiſt conſtitution, they cannot propagate, though in this caſe neither of them may be barren, ſingly conſidered; for he or ſhe, though now as barren as the barren fig-tree, yet joined with an apt conſtitution, may become as fruitful as the vine.

Another cauſe of barrenneſs may be the diſuſe of copulation: for ſome there are of that frigid conſtitution, that they either uſe not the means at all, or elſe perform it with ſo much langour and coldneſs, that it is not likely it ſhould prove efficacious: for the act of coition ſhould be performed with the greateſt ardour and intenſeneſs of deſire imaginable

ginable or elſe they may as well let it alone; a frigid diſpoſition being the effect of a cold diſtemper, and muſt be cured by ſuch things as heat and nouriſhment. For

Without good drink and feeding high,
Deſire to Venus ſoon will die.

Such therefore ought to feed upon cock-ſtones lamb ſtones, ſparrows, partridges, quails, and pheaſants eggs; for 'tis an infallible aphoriſm in phyſic that whatſoever any creature is extremely addicted to, they operate to the ſame end by their mutual virtue in the man that eats them. Therefore partridges, quails, ſparrows, &c. being extremely addicted to venery, they work the ſame effect in thoſe who eat them: and this likewiſe is worthy to be noted, that in what part of the body the faculty that you would ſtrengthen lies, take the ſame part of another creature, in whom that faculty is ſtrong, as a medicine: therefore cock ſtones, &c. are medicinal in this diſtemper. Let ſuch perſons alſo eat ſuch food as is very nouriſhing, as parſnips, alliſanders, ſkirits, and pine nuts: and let them take a dram of diatryon as an electuary every morning. The ſtones of a fox dried to a powder, a dram taken every morning in tent, is alſo very good in this caſe: and ſo alſo is a dram of ſatyrion roots, taken in like manner.

SECT. II. *Of the Signs of inſufficiency in Men; and barrenneſs in Women.*

After married people having lived long together, and both ſeem likely, and yet neither of them have had children, there often ariſes diſcontent between them, and both are troubled becauſe they know not on what ſide the fault is. And though authors have left ſeveral ways to know whether the man or the woman be defective, yet, becauſe I cannot confide in their judgments, I ſhall paſs them by in ſilence, and rather lay down a few rules that may be depended upon, than many that are uncertain. But I muſt premiſe, that women are ſubject to ſo many infirmities more than men, that the cauſe of barrenneſs is oftener on their ſide than the man's. For if the man has the inſtrument of generation perfect, being in health, and keeping a regular and temperate diet and exerciſe, I know no accidental cauſe of

of barrenneſs in him; whereas the cauſe of barrenneſs in a woman lies in her womb, and the infirmities incident thereunto; ſome of which are ſtopping of the Menſtrua, or their overflowing: as alſo the falling out thereof, and the inflammation, windineſs, heat, and dryneſs thereof; for each of which we ſhall preſcribe proper cures. But to be more particular.

If a man or a woman, in whom the inſtruments of generation appears no ways defective, would know whether the cauſe of barrenneſs be in themſelves or their bed fellow, let them take a handful of barley, or any other corn that will grow quickly, and ſteep half of it in the urine of a man, and the other in the urine of the woman, during the ſpace of twenty-four hours. Then take it out and ſet it, the man's by itſelf, and the woman's by itſelf, in a flower pot, or ſomething elſe, where you may keep them dry. Then water the man's every morning with his own urine, and the woman's with hers; and that which grows is moſt fruitful: and that which does not grow, denotes the perſon barren. Nor let any deſpiſe this trial; for ſeeing phyſicians will by urine undertake to tell a perſon of his or her diſeaſes, why ſhould not urine alſo ſhew whether a perſon be fruitful or not? But if in a man the inſtrument of generation is not perfect, it will be obvious to the ſight; and if the yard be ſo feeble that it will not admit of erection, it can never convey the ſeed into the womb, nor can there be in ſuch a caſe any conception. But this is ſo plain and eaſily diſcerned, that it needs muſt be obvious to both parties, and the man who finds himſelf debilitated ought not to marry.

The caſe can't be ſo bad with the woman, though ſhe be barren, but what her huſband may make uſe of her, unleſs ſhe be impenetrable, which (though it ſometimes does) yet but rarely happens: and therefore the man is the moſt inexcuſable if he tranſgreſs.

Beſides what I have already mentioned, ſigns of barrenneſs in women are: if ſhe be of an over hot conſtitution, of a dry body, ſubject to anger, hath black hair, a quick pulſe, her purgations flow but little, and that with pain, and yet has a violent deſire to coition; but if ſhe be of a cold conſtitution, then are the ſigns contrary to thoſe recited. If barrenneſs be cauſed through an evil quality of the womb, it may

be known by making a ſuffumigation of red ſtorax, myrrh, caſſia wood, nutmeg, cinnamon, and letting her receive the fume of it into her womb, covering her very cloſe. If the odour paſſeth through the body up into the mouth and noſtrils, ſhe is fruitful. But if ſhe feel not the fume in her mouth and noſe, it denotes barrenneſs one of theſe ways, viz. That the ſeed is either through cold extinguiſhed, or through heat diſſipated. And if a woman be ſuſpected to be unfruitful, caſt natural brimſtone, ſuch as is digged out of the mine, into her urine, and if worms breed therein ſhe is fruitful. But this ſhall ſuffice to be ſaid of the cauſes and ſigns of barrenneſs, as 'tis now time to proceed to the cure.

SECT. III. *Of the Cure of Barrenneſs.*

In the cure of barrenneſs reſpect muſt be had to the cauſe; for the cauſe muſt be firſt removed, and then the womb ſtrengthened, and the ſpirits of the ſeed enlivened by corroborating applications.

If barrenneſs proceeds from over much heat, let her uſe inwardly, ſuccory, endive, violets, water-lilies, ſorrel, and lettuce, with ſyrups and conſerves made thereof, thus:

Take conſerve of borage, violets, ſuccory, water lilies, of each an ounce, half an ounce of conſerve of roſes: diamargarition frigid. Diatrion, ſancalon, of each half a dram; with ſyrup violets, or juice of citrion, make an electuary.

Let her alſo take of endive, water-lilies, borage flowers, of each a handful, rhuburb, myrobolans, of each three drams, with water make a decoction; add to the ſtraining, the ſyrup laxative of violets one ounce, ſyrup of caſſia half an ounce, manna three drams; make all into a potion. Take of the ſyrup of mugwort one ounce, ſyrup of maidenhair two ounces, pulv. elect. trionſat, make all up into a julep. Apply to the reins and privities fomentations of the juice of lettuce, violets, roſes, mallows, vine leaves, and night ſhade; let her alſo anoint her ſecret parts with the cooling ointment of galls. Baths are good for her to ſit in. Let the air be clear, her garments thin, her food lettuce, endive, ſuccory, and barley; but let her have no hot meats, nor ſtrong wines, except it be wateriſh and thin. Reſt is good for her, both

both in body and mind; ſhe muſt uſe but little copulation, but may ſleep as much as ſhe will.

If barrenneſs be occaſioned by the predominancy of cold, extinguiſhing the power of the ſeed, which may be known by her deſiring venery, and receiving no pleaſure in the act of copulation, even while the man is ſpending his ſeed: her terms are phlegmatic, thick, ſlimy and flow not rightly: in this caſe let her take ſyrup of calamint, mugwort, betony, of each one ounce, water of pennyroyal, feverfew, hyſſop, ſage, of each two ounces; and make a julep. Let her take every morning two ſpoonfuls of cinnamon water, with one ſcruple of mithridate. Alſo let her take oil of anniſeed one ſcruple and a half, jeſſamine, diachylon both, dinoſchi diaglang of each one dram: ſugar four ounces; with water of cinnamon make lozenges, and take of them a dram and a half twice a day, two hours before meals. Let her alſo faſten cupping glaſſes to her hips and belly, and let her take ſtorax calamite one ounce; maſtich, cloves, cinnamon, nutmeg, lignum, aloes, frankincenſe, of each half an ounce, muſk ten grains, ambergreaſe half a ſcruple, with roſe-water make a confection; divide it into four parts, of one make a pomum odoratum to ſwell to, if ſhe be not hyſterical: of the ſecond, make a maſs of pills, and let her take three every night; of the third, make a peſſary, and put it up; of the fourth, make a ſuffumigation for the womb.

If barrenneſs ariſes from the faculties of the womb being weakened, and the life of the ſeed ſuffocated by overmuch humidity flowing on thoſe parts, let her take of betony, marjoram, mugwort, pennyroyal, balm, of each one handful; root of onrum, fennel, elecampane of each two drams; anniſeed, cummin ſeed, of each a dram, with ſugar and water a ſufficient quantity, of which make a ſyrup, take three ounces every other morning. Then purge with theſe pills following, take of pil. ext. two ſcruples; diagridion two grains; ſpecies de caſtor one ſcruple, make them up into nine pills with ſyrup of mugwort. Alſo take ſpec. diagmmæ diamoſchi, diambræ, of each one dram; cinnamon one dram and a half: mace, cloves, nutmegs of each half a dram; ſugar ſix ounces with water of feverfew; make lozenges to be taken every morning. Likewiſe let her take of the decoction of ſarſaparilla and viga aurea, with a good quantity of ſage, which is an herb of that virtue,

that Cornelius Agrippa honoured it with the title of Sacra Herba, a holy herb: and Dodonæus, in his hiſtory of plants, reports, that after a great plague had happened in Egypt, which had almoſt depopulated the country, the ſurviving women were commanded to drink the juice of ſage, that they might multiply the faſter. Let her alſo anoint her genitals with the oil of anniſeed and ſpikenard. Trochiſks to ſmother the womb are alſo very good. To make which let her take mace, nutmeg, cinnamon, ſtorax, amber, of each one dram: cloves, laden, of each half a dram; turpentine a ſufficient quantity. Laſtly, take the roots of valerian and elicampane, of each one pound; of galangal three ounces; origan, lavendar, marjoram, betony, mugwort, bayleaves, calamint, of each three handfuls; with water make an infuſion, in which let her ſit after ſhe has had her courſes. But to proceed.

If barrenneſs be cauſed by the dryneſs of the womb conſuming the matter of the ſeed, let her take every day almond milk and goats milk extracted with honey; eat often of the root ſatyrion candied, and of the electuary of diaſatyron. Let her alſo take three ſheeps heads, and boil them till the fleſh comes from the bone, then take of the mileot, violets, camomile, mercury, orchies, with the roots of each, one pound fenugreek, lintſeed, valerian roots, of each a handful; let all theſe be decocted in the aforeſaid broth, and let the woman ſit in the decoction up to the navel. Alſo take of deer's ſuet half an ounce; cow's marrow, ſtyracis liquidæ, of each a dram; oil of ſweet almonds two ounces, with ſilk or cotton make a peſſary, and make injections only of freſh butter and oil of ſweet almonds.

It ſometimes happens that barrenneſs is cauſed by remiſſneſs in the manner of the act of coition; and though there be no impediment on either ſide, yet if both ſexes meet not in that act with equal vigour, no conception follows; for many times the man is too quick for the woman, or rather the woman too ſlow for the man, and is not prepared to receive the ſeed with that delight which ſhe ought, when it is emitted by the man; and thoſe who follow the opinion of the ancients, that the woman contributes ſeed in the formation of the child as well as the man, are of opinion that there ought to be a joint emiſſion both of the man and woman at the ſame inſtant, which, adminiſtering to both a very great

great delight, perfects the work of conception. But if in this caſe the woman be ſlack, it will be proper for the man to follow the advice given in Chap. III. ſect. 2. where both ſexes are ſhewn how to manage themſelves in the act of coition, that ſo by ſtirring up in the woman a deſire to venery, ſhe may meet his embraces with the greateſt ardour. If this ſhould prove ineffectual, let her before the act of coition foment the privities with the decoction of betony, ſage, hyſop and calamint, anoint the mouth and head of the womb with muſks and civet; and the cauſe of barrenneſs being removed, let the womb be corroborated by the following applications.

Take of bay berries, maſtich, nutmeg, frankincenſe, cypreſs nuts, zadani, galbani, of each one dram; ſtyracis liquidæ, two ſcruples; cloves half a ſcruple; ambergreaſe, two grains; muſk ſix grains; then with oil of ſpikenard make a peſſary. Alſo take red roſes, with frankincenſe, lapidis hæmatitis, of each half an ounce; ſanguis draconis, fine bole maſtich, of each two drams; nutmeg, cloves, of each one dram; ſpikenard half a ſcruple, and with oil of wormwood make a plaſter for the lower part of the belly. And let her eat of erringo roots, candied, and make an injection of the juice of the roots of ſatyron: and then let her uſe copulation ſoon after the menſes are ceaſed. Conception being moſt apt to follow; for then the womb is thirſty and dry, and apteſt both to draw the ſeed and to retain it by the roughneſs of the inward ſuperfices. A woman ſhould be careful to avoid exceſs in all things, as being the greateſt enemy to conception. For, ſhould a woman conceive under care, ſtudy, &c. the child will probably be fooliſh, becauſe the animal faculties of the parents were confuſed.

CHAP. V.

How Women ought to govern themſelves during their Pregnancy.

FIRST, let a woman that is with child chuſe a temperate air, not infected with fogs, and for that reaſon not near any marſhy grounds, rivers, &c. But this cannot be avoided by ſome, their habitation falling out to be in ſuch places.

But

But thoſe who can live where they pleaſe ought to avoid ſuch places: as likewiſe the going abroad in too hot or cold weather: alſo when the ſouth wind blows hard, for that often proves hurtful to women with child, and ſometimes cauſes abortion.

Secondly, She ought alſo to be very cautious in the matter of her diet, chuſing only thoſe meats that create wholeſome nouriſhment, and ſuch as are moderately dry: and let her take care to prevent and avoid immoderate faſting, for that will weaken the infant, and render it of a ſickly conſtitution, and ſometimes cauſes abortion. And as all exceſſes are to be avoided; ſo ſhe muſt take care not only of avoiding immoderate faſting, but likewiſe immoderate eating too, which will not only be apt to ſtuff up the child, but to ſwell it up to that degree, that it will endanger the life of itſelf and the mother in its birth. Let it ſuffice, that in general ſhe avoid all meats which are too hot, or too cold and moiſt; ſuch as ſallads, ſpices, and hot meats, which often cauſe the child to be born before its time; and ſometimes without nails, which foreſhews a ſhort life. And therefore, in this caſe the moſt wholeſome meats are pigeons, partridges, pheaſants, larks, veal, mutton, or any meat that yields a good juice, and contributes kindly nouriſhments; as alſo ſuch fruits as are ſweet and of eaſy digeſtion, as cherries, pears, damiſons, and the like. But let her avoid, as pernicious, all ſuch things as cauſe and create wind.

Care ought alſo to be taken with reſpect to her exerciſe, which ought to be moderate: for violent motion, either in walking or working, is hurtful and diſturbing to the womb, eſpecially riding upon the ſtones in a coach, or any other uneven place: and in the like manner all extraordinary ſounds and noiſes ſhould be avoided, eſpecially the ringing of bells, and the diſcharging of great guns: neither ought ſhe to give way to either immoderate laughing or weeping, or to anger, or any other paſſion, for that may be prejudicial to her.

SECT. II. *Further rules for Women to obſerve during their Pregnancy.*

Though the act of coition is that without which conception cannot be, yet the immoderate uſe of it hinders the chief end for which it was deſigned. In the firſt four months after

after conception ſhe ought not to lie with her huſband, at leaſt ſparingly, leſt, by ſhaking the womb in that action, the courſes ſhould again be forced down. In the fifth and ſixth months ſhe ought alſo to abſtain; but in the ſeventh, eighth, and ninth, it may freely be permitted, by reaſon it opens the paſſage, and facilitates the birth. To contribute the better towards which, the woman ſhould be careful to keep her body ſoluble; ſyrups, and other opening things being very helpful to nature in thoſe operations. Let her not lace too cloſe, leſt the child be thereby hindered from coming to its full growth.

To prevent any diſorder that may happen to her breaſts by too much blood, which will cauſe curdled milk, let her wear a necklace of gold about her neck, or rather a ſmall ignot of ſteel between her breaſts, fomenting them a quarter of an hour every morning with water diſtilled from ground ivy, periwinkle and ſage, being blood warm.

When her belly is ſwelling, and the motion is great, which will be about the fourth month, ſhe may ſwathe it with a ſwatheband, anointed with pomatum or any other thing of that kind, to keep it ſmooth and free from wrinkles. For which end it will be beſt to take of the caul of a kid, and of a ſow, of each three ounces; capon greaſe and gooſe-greaſe, of each one ounce and a half: and, having melted them all together, put thereto a quarter of a pint of water; after which ſtrain them through a linen cloth into fair water, caſting it to and fro therein till it be white; at which time add to it the marrow of a red deer one ounce, and lay it in red roſe-water twelve hours. After the expiration of which you may uſe it, anointing the ſwathe and belly.

But if theſe ingredients are not eaſy to be had, you may make uſe of the following liniment, which will do almoſt as well as the other: take of mutton ſuet, (that which grows above the kidneys is beſt) and of dog's greaſe, of each two ounces, whale oil one ounce, and oil of ſweet almonds the ſame quantity; waſh them well, after they are melted together in the water of germander, or new white wine, and anoint the belly and ſwathe therewith. Thoſe that care not to anoint their bellies may make uſe of the following bath or decoction; take of all ſorts of mallow, and of mother-wort, each two handfuls; white lilly roots three ounces; meliot and camomile, of each two handfuls; lime ſeeds, quince ſeeds, and fenugreek

fenugreek ſeeds, three ounces; boil them well in ſpring water, and bathe therewith. If the woman, after her quickening, finds but little motion of the infant in her womb, let her make a quilt in the manner following, and bind it upon the navel, and it will much ſtrengthen and comfort the infant: take the powder of roſes, red coral and jelly flowers, of each two ounces; maſtich a dram, angelica ſeeds two drams, ambergreaſe two grains; and muſk two grains; all which being well beaten, put them into a linen bag, ſpread them abroad and quilt it, that they may be in every part of it, placing it upon the navel, and it will have the deſired effect. Theſe things are ſufficient to be obſerved during the time of pregnancy, that neither child nor mother may miſcarry, but be brought to the birth at the appointed time.

CHAP. VI.

Directions for Midwives how to aſſiſt Women in the time of their Labour; and how child-bearing Women ſhould be ordered in the time of their lying-in.

SECT. I. *How a Midwife ought to be qualified.*

A Midwife ought to be of a middle age, neither too old nor too young, and of a good habit of body, not ſubject to diſeaſes, fears, or ſudden frights; nor are the qualifications aſſigned to a good ſurgeon improper for a midwife, viz. a lady's hand, a hawk's eye, and a lion's heart; to which may be added activity of body, and a convenient ſtrength, with caution and diligence, not ſubject to drowſineſs, nor apt to be impatient. She ought to be ſober and affable, not ſubject to paſſion, but bountiful and compaſſionate, and her temper chearful and pleaſant, that ſhe may the better comfort her patients in their ſorrow. Nor muſt ſhe be very haſty, though her buſineſs may perhaps require her in another place, leſt ſhe ſhould make more haſte than good ſpeed. But above all, ſhe ought to be qualified with the fear of God, which is the principal thing in every ſtate and condition, and will furniſh her on all occaſions both with knowledge and diſcretion. But now I proceed to more particular directions.

SECT.

SECT. II. *What muſt be done when the Woman's time of labour is come.*

When the time of birth draws near, and the good woman finds her travailing pains begin to come upon her, let her ſend for a midwife in time, better too ſoon than too late, and get thoſe things ready which are proper upon ſuch occaſions. When the midwife is come, let the firſt thing ſhe does be to find whether the true time of the birth be come. The want of obſervin this hath ſpoiled many a child, and endangered the life of the mother, or at leaſt put her to twice as much pain as ſhe needed: for unſkilful midwives, not minding this, have given things to force down the child, and thereby diſturbed the natural cauſe of her labours: whereas nature works beſt in her own time and way. I do confeſs it is ſomewhat difficult to know the true time of ſome womens labour, they being troubled with pains ſo long before their true labour comes; in ſome, weeks before: the reaſon of which is the heat of the reins, which is manifeſt by the ſwelling of the legs. And therefore when women with child find their legs to ſwell much, they may be aſſured their reins are too hot. Wherefore, my advice to ſuch women is to cool their reins before the time of their labour, which may be effectually done by anointing the reins of the back with the oil of poppies and violate, or water-lilies, and thus they may avoid that hard labour which they uſually undergo whoſe reins are hot: which, that they may the better prevent, let me recommend to you the decoction of plaintain leaves and roots, which is thus made: make a ſtrong decoction of them in water, and then, having ſtrained and clarified it with the white of an egg, boil it into a ſyrup with its equal weight of ſugar, and keep it for uſe. But ſince it is ſo neceſſary for midwives to know the true time of a woman's labour, the following ſection will rightly inform them.

SECT. III. *Signs by which the true time of a Woman's labour may be known.*

When women draw near to the time of their reckoning, eſpecially

eſpecially with the firſt child, and perceive any extraordinary pains in their belly, they immediately ſend for their midwife, as taking it for their labour, though perhaps thoſe pains which are ſo often miſtaken for labour are only cauſed by the cholic, and proceed from wind; which pains, though they come and go, griping the whole belly, are yet without any forcing downward into the womb, as is done by thoſe that go before labour. But theſe cholic pains may be removed by warm cloths laid upon the belly; and the application of a clyſter or two, by which thoſe pains that precede a true labour, are rather furthered than hindered. There are alſo other pains incident to women in that condition from the flux of the belly, which are eaſily known by the frequent ſtools that follow them.

But to ſpeak more directly of the matter: the ſigns of labour ſome few days before are, that the woman's belly, which before lay high, ſinks down, and hinders her from walking ſo eaſily as ſhe uſed to do: alſo there flows from the womb ſlimy humours, which nature has appointed to moiſten and make ſmooth the paſſage, that its inward orifice may be the more eaſily dilated when there is occaſion, which beginning to open at that time, ſuffers that ſlime to flow away, which proceeds from the glands, called preſſætæ. Theſe are ſigns preceding labour.

But when ſhe is preſently falling into labour, the ſigns are great pains about the reins and loins, at which coming and retreating by intervals, anſwer in the bottom of the belly by congruous throws: and ſometimes the face is red and inflamed, the blood being much heated by the endeavours a woman makes to bring forth the child: and likewiſe becauſe during the ſtrong throws her perſpiration is intercepted, which cauſes the blood to have recourſe to her face: her privy parts are alſo ſwelled by the infant's head lying in the birth, which by often thruſting, cauſes thoſe parts to diſtend outward. She is likewiſe much ſubject to vomiting, which is alſo a ſign of good labour and ſpeedy delivery, though by a great many ignorant women thought otherwiſe: for good pains are hereby excited and redoubled: which vomiting is occaſioned by the ſympathy there is between the womb and the ſtomach. Alſo when the birth is near, moſt women are troubled with a trembling of the thighs and legs: not with cold, like the beginning of an ague

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fit but with the heat of the whole body; though this indeed does not happen always. Alſo, if the humours, which then flow from the womb, are diſcoloured with blood (which is what the midwife calls ſhews) it is an infallible mark of the birth's being near: and then if the midwife puts her finger up the neck of the womb, ſhe will find the inner orifice dilated: at the opening of which, the membranes of the infant, containing the waters, preſent themſelves, and are ſtrongly forced downwards with each pain ſhe hath: at which time one may perceive them ſometimes to reſiſt the finger; and then again to preſs forwards, being more or leſs hard and extended, according as the pains are ſtronger or weaker. Theſe membranes with the water in them, when they are before the head of the child, which the midwives call the gathering of the womb, reſembles to the touch of the fingers thoſe eggs which have yet no ſhell, but are covered only by a ſimple membrane. After this the pains ſtill redoubling, the membranes are broken by the ſtrong impreſſion of the waters, which preſently flow away, and then the head of the infant is preſently felt naked, and preſents itſelf at the inward orifice of the womb. When thoſe waters come thus away, then the midwife may be aſſured the birth is very near: this being the moſt certain ſign that can be; for the Amnion and Allantois being broken (which contained thoſe waters) by the preſſing forward of the birth, the child is no more able to ſubſiſt long in the womb afterwards than a naked man in a heap of ſnow. Now theſe waters, if the child come preſently after them, facilitate the labour, by making the paſſage ſlippery: and therefore let no midwife uſe means to force away the water: for nature knows beſt when the true time of the birth is, and therefore retains the water till the time; but if by accident the water breaks away too long before the birth, then ſuch things as will haſten it may be ſafely adminiſtered.

SECT. IV. *What is to be done at the time of labour.*

When the midwife is ſatisfied that it is the true time of labour, ſhe muſt take care to get all things ready that are neceſſary to comfort the travailing woman in that time; and the better to do it, let her ſee that ſhe be not ſtrait laced.

She may alſo give her a pretty ſtrong clyſter, if ſhe finds there is occaſion for it; but with this proviſo, that it be done at the beginning and before the child be too forward; for otherwiſe it will be difficult for her to receive it. The advantage of which clyſter is, that the gut thereby will be excited to diſcharge itſelf of its excrements, and the Rectum being emptied, there will be more ſpace for the dilating of the paſſage; likewiſe to cauſe the pains to bear more downwards, through the endeavours ſhe makes when other neceſſary things for her labour to put in order, both for the mother and the child.

As to the manner of the delivery, various midwives uſe different ways: ſome are delivered ſitting on a midwife's ſtool. But, for my own part, I think that a pallet bed, girded and placed near the fire, that the good woman may come on each ſide, and be the more readily aſſiſted, is much the beſt way.

And if the labouring woman abounds with blood, it may not be improper to let her bleed a little; for by that means ſhe will both breathe the better, and have her breath more at liberty, and likewiſe more ſtrength to bear down her pain: and this may be done without danger, becauſe the child being now ready to be born, needs not the mother's blood for its nouriſhment any longer; and not only ſo, but this evacuation does many times prevent her having a fever after delivery. Likewiſe, if her ſtrength will permit, let her walk up and down her chamber; and the better to enable her thereto, let her take ſome good ſtrengthening things, ſuch as new laid eggs, jelly, broth, ſome ſpoonfuls of burnt wine; and encourage her to hold off her pain, bearing them down when they take her all that ſhe can. And let the midwife often touch the inward orifice with her finger, that ſhe may better know whether the waters are going to break, and whether the birth will follow ſoon after; for generally the birth follows in two hours after the afflux of the water. And to help it afterwards, let her anoint the woman's privities with emolient oil, hog greaſe, and freſh butter; eſpecially if ſhe finds them too hard to be dilated.

Let the midwife alſo be near the labouring woman all the while, and diligently obſerve her geſtures, pains, and complaints; for by this ſhe may gueſs pretty well how her labour goes forward; for when ſhe changes her groans into loud

loud cries it is a great ſign the birth is near; at which time her pains are greater and more frequent. Let her alſo ſometimes reſt herſelf on her bed to renew her ſtrength, but not too long at a time, for to lie too long at a time will retard her labour, and therefore it is better, for her to walk about her chamber as much as ſhe can; which, that ſhe may the better do, let the good woman ſupport her under her arms, if it be neceſſary; for by walking, the weight of the child cauſes the inward orifice of the womb to dilate much ſooner than it would do if ſhe lay upon her bed; beſides by walking, her pains will be ſtronger and frequenter, and by conſequence her labour will not be near ſo long. If ſhe finds any ſick qualms, let her not be diſcouraged; and if ſhe finds any motions to vomit, let her not ſuppreſs them, but rather give way to them; for it will (however uneaſy and irkſome they be for the preſent) be much for her benefit, becauſe they further the pains, and provoke downwards.

SECT. V. *How to provide the Birth, and cauſe ſpeedy Delivery.*

When the birth is long deferred after the coming down of the waters, let her haſten the birth by drinking a good draught of wine, wherein dittany, red coral, juniper berries, betony, pennyroyal, and feverfew, have been boiled, or the juice of feverfew taken in its prime, (which is in May) and clarified, and ſo boiled up in a ſyrup, and twice its weight of ſugar, is very good upon this occaſion. Alſo mugwort uſed in the ſame manner works the ſame effect. And ſo alſo does a dram of cinnamon in powder, given inwardly, or tanſy bruiſed and applied to the privities. Likewiſe the ſtone Ætites held to the privities does in a very little time draw forth the child and the after-burden, but great care muſt be taken to remove it gently, or elſe it will draw forth the womb and all, ſo great is its magnetic virtue. Alſo a decoction of ſavory made with white wine, and drank, gives a woman ſpeedy delivery. Alſo wild tanſy or ſilverweed bruiſed and applied to the woman's noſtrils, is very good. So alſo are date ſtones beaten to powder, and half a dram of them taken in white wine: parſley is of excellent uſe on this occaſion; for if you bruiſe it and preſs out the

juice, and then dip a linen cloth in it, and put it up; being ſo dipped into the mouth of the womb, it will preſently cauſe the child to come away though it be dead, and will bring away the after-burden alſo. The juice of parſley being of great virtue, eſpecially the ſtone parſley, being drank by a woman with child, it cleareth not only the womb, but alſo the child in the womb, of all groſs humours. A ſcruple of caſtorum in powder in any convenient liquor is very good to be taken in ſuch a caſe, and ſo alſo are two or three drops of ſpirit of caſtorum in any convenient liquor. Eight or nine drops of the ſpirit of myrrh, given in a convenient liquor, have the ſame effect. Or give a woman in travail another woman's milk to drink, it will cauſe ſpeedy delivery. Alſo the juice of lecks being drank with warm water hath a mighty operation, cauſing ſpeedy delivery. Take piony ſeed, beat them to powder, and mix the powder with oil; with which oil anoint the loins and privities of the woman with child; it gives her deliverance very ſpeedily, and with leſs pain than can be imagined. And this may be noted for a general rule, that all thoſe things that move the terms are good for making the delivery eaſy. There are ſeveral other things efficacious in this caſe; but I need not heap medicines unneceſſary, thoſe I have already named being ſufficient.

When any of the forenamed medicines have haſtened the birth, let the midwife lay the woman in a poſture for delivery. And firſt, let the woman be conducted to the pallet-bed placed at a convenient diſtance from the fire, according to the ſeaſon of the year; and let there be a quilt laid upon the pallet bedſtead, which is better than a feather bed, and let it have thereon a linen cloth in many folds, with ſuch other things as are neceſſary, which may be changed according as the occaſion requires it; that ſo the woman may not be incommoded with blood, waters, and other filth, which are voided in labour. Then let her lay the woman upon her back, having her head a little raiſed by the help of a pillow, having the like help to ſupport her reins and buttocks, that her rump may lie high: for if ſhe lie low ſhe cannot very well be delivered. Then let her keep her knees and thighs as far aſunder as ſhe can, her legs being bowed towards her buttocks, and let her feet be ſtayed againſt a log or ſome other firm thing; and let two women

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hold her two ſhoulders, that ſhe may ſtrain out the birth with the more advantage, holding in her breath, and forcing herſelf as much as poſſible, in like manner as when ſhe goes to ſtool: for by ſuch ſtraining the diaphragm, or midriff, being ſtrongly thruſt downwards, neceſſarily forces down the womb, and child in it. In the mean time let the midwife encourage her all ſhe can, and take care that ſhe have no rings on her hand when ſhe anoints the parts: then with her finger let her gently dilate the inward orifice of the womb; and putting her fingers in the entry thereof, ſtretch them from one another when her pains take her, by this means endeavour to help forward the child, and thruſting by little and little the ſides of the orifice towards the hinder part of the child's head, anointing thoſe parts with freſh butter, in caſe it be neceſſary. And when the head of the infant is ſomewhat advanced into this inward orifice, it is uſual among midwives to ſay it is crowned, becauſe it both girds and ſurrounds it like a crown; but when it is gone ſo far, and the extremity begins to appear without the privy parts, they then ſay the child is in the paſſage; and at this time the woman feels herſelf as if ſhe was ſcratched or pricked with pins, and is ready to think that the midwife hurts her; whereas in truth it is only occaſioned by the violent diſtention of thoſe parts, which ſometimes even ſuffer laceration through the bigneſs of the child's head. When things are come to this poſture, let the midwife ſeat herſelf conveniently to receive the child, which will now come very quickly, and with her fingers end, which ſhe ought alſo to be ſure to keep pared, let her endeavour to thruſt the crowning of the womb back over the head of the child. And as ſoon as it is advanced as far as the ears, or thereabouts, let her take hold of the two ſides with her two hands, and wait till the good pain comes, and then quickly draw forth the child, taking care that the navel ſtring be not entangled about the child's neck, or any other part, as ſometimes it is, leſt thereby the after burden be pulled with violence, and perhaps the womb alſo, to which it is faſtened, and ſo either cauſe her to flood, or elſe break the ſtring, both which are of bad conſequence to the woman, and render her delivery the more difficult. Great care muſt be taken that the head be not drawn forth ſtrait, but ſhake it a little from one ſide to the other, that the ſhoulders may the ſooner and eaſier

take its place, immediately after it is paſt; which muſt be done without loſing any time, leſt the head being paſſed, the child ſtops there by the largeneſs of the ſhoulders, and ſo be in danger of being ſuffocated in the paſſage, as it has ſometimes happened for want of care therein. When the head is born, ſhe may ſlide in her fingers under the armpits, and the reſt of the body will follow without difficulty. As ſoon as the midwife hath in this manner drawn forth the child, let her lay it on one ſide, leſt the blood and water which follow it immediately ſhould do it any injury, by running into its mouth and noſe, as it would do if it lay on its back, and ſo endanger the choaking of it. The child being thus drawn forth, the next thing requiſite is to bring away the after-burden; but before that, let the midwife be very careful to examine whether there be any more children in the womb: for ſometimes a woman may have twins; of which the midwife may ſatisfy herſelf, both by the continuance of the woman's throws, and the bigneſs of her belly. But this is not ſo certain as to put her hand up the entry of the womb, and there feel whether another child is not preſenting to the paſſage; and if ſo, ſhe muſt have a care how ſhe goes about the after birth, till the woman be delivered. The firſt ſtring muſt be cut and tied with a thread three or four double, and the ends faſtened with a ſtring to the woman's thigh, to prevent the inconvenience it may cauſe by hanging between the thighs.

SECT. VII. *Of the After-burden.*

Until the after burden is brought away, which ſometimes is more difficult to do than the child, and altogether as dangerous, if it be not ſpeedily done, the woman cannot properly be ſaid to be ſafely delivered though the child be born.

Therefore, as ſoon as the child is born, before the midwife either ties or cuts the navel ſtring, leſt the womb ſhould cloſe, let her, having taken the ſtring, wind it once or twice about one or two of the fingers of the left hand joined together, the better to hold it, with which ſhe may take ſingle hold of it above the left, near the privities, drawing likewiſe with that very gently, reſting a while, with the forefinger of the ſame hand extending and ſtretching along the ſtring

ſtring towards the entry of the Vagina, always obſerving for the more facility to draw it from the ſide to which the burden leaſt inclines, for in ſo doing the reſt will ſeparate the better; and extraordinary care muſt be taken, that it be not drawn forth with too much violence, leſt by breaking the ſtring near the burden, the midwife be obliged to put her whole hand into the womb to deliver the woman; and ſhe had need to take care in this matter, that ſo the womb itſelf, to which ſometimes this burden is faſtened very ſtrongly, be not drawn away with it, which has ſometimes happened. It is therefore neceſſary to aſſiſt nature with proper remedies, which are in general whatever has been forementioned, to cauſe a ſpeedy delivery: for whatever magnetic virtue to bring away the birth has the ſame to bring away the after-birth. Beſides which, the midwife ought to conſider that the good woman cannot but be much ſpent by the fatigue ſhe has already undergone in bringing forth the infant, and therefore ſhould be ſure to take care to give her ſomething to comfort her. To which purpoſe ſome good jelly-broths, and a little wine, with a toaſt in it, and other comforting things will be neceſſary. Sneezing being concluſive to bring away the after-birth, let her take a little white helleborе in powder to cauſe her ſneeze. Tanſy and the ſtone Ætites, applied as before directed, is very efficacious in this. The ſmoke of marygold flowers, received up a woman's privities by a funnel, will bring away the after birth, though the midwife has loſt her hold. Or if you boil mugwort in water till it be very ſoft, and then take it out and apply it like a poultice to the navel of the woman in travail, it inſtantly brings away both the birth and after-birth; but as ſoon as they are come forth, it muſt be inſtantly taken away, leſt it ſhould bring away the womb alſo.

SECT. VIII. *How to cut the Child's Navel ſtring.*

After the birth and after-birth are ſafely brought away, the midwife ought to take care to cut the navel ſtring; which though it be by ſome eſteemed a thing of ſmall matter, yet it requires none of the leaſt ſkill of a midwife to do it with that care and prudence that it ought, and therefore to inſtruct the induſtrious midwife a little therein. As ſoon

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as the child is come into the world, let her conſider whether it be weak or ſtrong; and if it be weak, let her gently put back part of the vital and natural blood in the body of the child, by the navel, for that recruits a weak child, the vital and natural ſpirits being communicated by the mother to the child by its navel ſtring. But if the child be ſtrong there is no need of it. Only it will not be amiſs to let the midwife know, that many children that are born ſeemingly dead, may be brought to life again, if ſhe ſqueeze ſix or ſeven drops of blood out of that part of the navel-ſtring which is cut off, and give it the child inwardly.

As to the cutting it ſhort or long, authors can ſcarce agree about it, nor midwives neither; ſome preſcribe it to be cut at four fingers breadth, which is at the beſt but an uncertain rule, unleſs all fingers were of one ſize. 'Tis a received opinion, that the parts adapted to generation are either contracted or dilated, according to the cutting of the navel-ſtring; which is the reaſon that midwives are generally ſo kind to their own ſex, that they leave a longer part of the navel-ſtring of a male than the female, becauſe they would have the male well provided for the encounters of Venus. And the reaſon they give why they cut thoſe more ſhort is, becauſe they believe it makes them modeſt, and their parts narrower, which makes them more acceptible to their huſbands. But whether this be ſo or not (which yet ſome of the greateſt ſearchers into the ſecrets of nature affirm for a truth) yet certain it is that great care ought to be uſed about cutting of the navel-ſtring; and eſpecially, that after it is cut, it be not ſuffered to touch the ground, for if it be, the child will never be able to hold its water, but be ſubject all its lifetime to a diabetes, as experience often confirms; but as to this manner of cutting the navel ſtring let the midwife take a brown thread, three or four times double, of an ell long, or thereabouts, tied with a ſingle knot at each of the ends, to prevent their entangling; and with this thread ſo accommodated, (which the midwife ought to have in readineſs before the woman's labour, as alſo a good pair of ſciſſars, that ſo no time may be loſt) let her tie the ſtring within an inch of the belly with a double knot, and, turning about the ends of the thread, let her tie two or more on the ſide of the ſtring, reiterating it again, if it be neceſſary; then let her cut off the navel-ſtring another inch below the ligature towards

towards the after birth, ſo that there only remains but two inches of the ſtring, in the midſt of which will be the knot ſpoken of, which muſt be ſo ſtrait knit as not to ſuffer a drop of blood to ſqueeze out of the veſſels; but yet care muſt be taken not to knit it ſo ſtrait as to cut it in two; and therefore the thread muſt be pretty thick, and pretty ſtrait knit, it being better too ſtrait than too looſe. Some children have miſerably loſt their lives, before it hath been diſcovered that the navel ſtring was not well tied. Therefore great care muſt be taken that no blood ſqueeze through, for if there do, new knots muſt be made with the reſt of the ſtring. You need not fear to bind the navel ſtring very hard, becauſe it is void of ſenſe; and that part of it which you leave on, falls off of its own accord in a few days, ordinarily ſix or ſeven, and ſometimes in leſs time: but it is very rare that it tarries longer than the eighth or ninth day.

As ſoon as the navel ſtring is cut off, apply a little cotton or lint to the place to keep it warm, leſt the cold enter into the body of the child, which it will unavoidably do in caſe it be not bound hard enough; and if the lint or cotton you apply to it be dipped in oil of roſes, it will be the better: then having put another ſmall rag, three or four times double, upon the belly of the child, above the navel, lay the ſtring ſo wrapped upon it that it may touch the naked belly.

Upon the top of all put another ſmall bolſter: and then ſwathe it in a linen ſwathe, four fingers broad, to keep it ſteady, leſt by rolling too much, or being continually ſtirred from ſide to ſide, it comes to fall off, before the navel-ſtring which you left remaining is fallen off. 'Tis the uſual cuſtom of midwives to put a piece of burnt rag to it; but I would adviſe them to put a ſmall quantity of bole armoniac, becauſe of its drying quality. Thus much may ſuffice as to cutting the navel ſtring and delivery of a woman in labour, where the labour is natural, and no ill accident happens. But it ſometimes ſo falls out, that the labour is not only hard and difficult, but unnatural alſo, in which the midwife muſt take other meaſures.

CHAP.

CHAP. VII.

What unnatural labour is, and whence it proceeds; and what the Midwife ought to do in ſuch caſes.

SECT. I. *What unnatural labour is.*

IT will be neceſſary to acquaint my readers that there are three ſorts of bad labour, all painful and difficult, but not all properly unnatural, which are as follows:

The firſt is properly ſtiled hard labour, and it is that wherein the mother and child do ſuffer very much by extreme pain.

The ſecond is difficult labour, which is thus different from the former, that beſides thoſe extreme pains, it is generally attended with ſome unhappy accident, which, by retarding the birth, makes it very difficult. Neither of thoſe, though hard and difficult, can be called unnatural; for women to bring forth children in pain and ſorrow is natural.

'Tis therefore the third ſort of labour which I call unnatural: and that is, when the child eſſays to come into the world in a contrary poſition to that which nature ordained.

To explain this, the reader muſt know that there is but one right and natural way of poſture in which children come to the birth; and that is, when the head comes firſt, and the body follows after in a ſtrait line. If, inſtead of this, the child comes with its feet foremoſt, or with the ſide acroſs, it is quite contrary to nature, or, to ſpeak more plainly, unnatural.

SECT. II. *Whence hard, difficult, and unnatural labour proceed.*

The true phyſical reaſon why women in general bring forth their children with ſo much pain, is, that the ſenſe of feeling being diſtributed to the whole body by the nerves, and the mouth of the womb being ſo ſtrait, that it muſt of neceſſity be dilated at the time of her delivery; the dilating thereof ſtretcheth the nerves, and from thence cometh the pain: ſome women having more pain in their labour than others,

others, proceeds from their having the mouth of the matrix more full of nerves than others.

Hard and difficult labour may proceed either from the mother or child, or from both: it may proceed from the mother by reaſon of a general indiſpoſition of her body; from the indiſpoſition of ſome particular part only, and that principally of the womb, which may be affected with ſuch a weakneſs as renders the mother unable to expel her burden. It may be alſo becauſe ſhe is too young, or ſhe may be too old, and ſo may have the paſſage too ſtrait, and then, if it be her firſt child the parts may be too dry and hard, and cannot eaſily be dilated. The cholic does alſo cauſe labour to be hard and difficult, becauſe it hinders the true pain which ſhould accelerate it. By which means, or which reaſon rather, all great and acute pains render a woman's labour very difficult. As when the woman is taken with a violent fever, frequent convulſions, or a great flooding, or any other violent diſtemper, eſpecially when the membranes are thick, and the orifice is too ſtrait, or the neck of the womb not ſufficiently opened.

Hard labour may alſo proceed from the child; and this is either when it happens to ſtick to a mole, or is ſo weak it cannot break the membranes; alſo when it is too big, either all over, or its head only: or if the navel veſſels ſhould be twiſted about its neck, as when it proves monſtrous, or comes into the birth in an unnatural poſture. Sometimes it proceeds from the ignorance of the midwife, who may hinder nature in her work.

SECT. III. *How the Midwife muſt proceed in order to the delivery of a Woman, in caſe of hard labour and great extremity.*

In caſe the midwife finds a woman in difficult labour, ſhe muſt endeavour to know the particular obſtruction or cauſe thereof, that ſo ſhe may apply a ſuitable remedy. When hard labour is cauſed by a woman's being too young and too ſtrait, the paſſages muſt be anointed with oil, hog's lard, or freſh butter, to relax and dilate them the eaſier. But if a woman be in years, and has hard labour from her firſt child, let her lower parts be anointed to mollify the inward orifice, which

which in ſuch caſe (being more hard and callous (does not eaſily yield to the diſtention of labour; and indeed this is the true cauſe why ſuch women are longer in labour, and why their children in their birth are more ſubject to bruiſes than others. Thoſe who are very lean, and have hard labour from that cauſe, let them moiſten their parts with oil and ointments, to make them more ſmooth and ſlippery, that the head of the infant in the womb may not be compreſſed and bruiſed by the hardneſs of the mother's bones in its paſſage. But if the cauſe be weakneſs, ſhe ought to be ſtrengthened, the better to enable her to ſupport her pain. Since difficult labour proceeds from divers cauſes, the midwife muſt make uſe of ſeveral remedies to women in hard difficult labour, which muſt be adapted to the cauſes from whence it proceeds.

I need not tell the judicious midwife, that in caſes of extremity, when the labour is not only hard, but difficult and dangerous, a far greater care muſt be had than at other times. In ſuch caſes the ſituation of the womb muſt be minded, and accordingly her poſture of lying muſt be regulated; which will be beſt acroſs the bed, being held by thoſe that are of a good ſtrength to prevent her ſlipping down, or moving herſelf, during the time of the operation. Then let her thighs be put aſunder as far as may be, and held ſo while her legs are bent backwards towards her hips, her head leaning upon a bolſter, and the reins of her back ſupported in like manner, her rump and buttocks being lifted up: obſerving to cover her ſtomach, belly, and thighs, with warm linen, as well for decency's ſake as to keep them from the cold.

The woman being in this poſture, let the midwife or other operator put up her hand, and try if the neck of the womb be dilated, and then remove the contracted blood that obſtructs the paſſage of the birth, and having gently made way, let the operator tenderly move the infant, having the head anointed with ſweet butter, or any harmleſs pomatum, and if the waters are not come down they may be let forth without any difficulty. And if the infant ſhould attempt to break forth, not with the head foremoſt or acroſs, he ought gently to turn it, that he may find the feet; which having done, let him draw forth one, and having faſtened it to a ribbon, put it up again, and finding the other, bring them as cloſe as may be: let the woman breathe between whiles, aſſiſting

aſſiſting nature what ſhe can by ſtraining in bringing forward the birth, that ſo he may more eaſily draw it forth; and that the operator may do it the better, and his hold may be the ſurer, he muſt faſten or wrap a linen cloth about the child's thighs, obſerving to bring it into the world with its feet downwards.

But in caſe there be a flux of blood, let the operator be well ſatisfied whether the child or the ſecundine come firſt; for ſometimes when the ſecundine has come firſt, the mouth of the womb has been thereby ſtopped, and the birth hindered, to the hazard both of the woman and child; and therefore in this caſe the ſecundine muſt be removed by a ſwift turn, and the child ſought for, and drawn forth, as has been directed.

If upon enquiry it appears that the ſecundine comes firſt, let the woman be delivered with all convenient ſpeed, becauſe a great flux of blood will follow; for then the veins are opened. And on this account two things are to be minded; firſt, whether the ſecundine advances forward much or little: if the former, and the head of the child firſt appears, it muſt be directed to the neck of the womb, as in the caſe of natural births; but if there appears any difficulty in the delivery, the beſt way is to ſearch for the feet, and by them it may be put by with a gentle hand, and the child taken out firſt: but if the ſecundine is advanced, ſo that it cannot be put back, and the child follow it cloſe, then the ſecundine is to be taken out firſt with much care, and as ſwift as may be, and laid aſide, without cutting the entrail that is faſtened to them; for by that you may be guided to the infant, which, whether it be alive or dead, muſt be drawn forth by the feet as ſoon as poſſible; though this is not to be done but in caſes of great neceſſity, for the order of nature is for the ſecundine to come laſt.

SECT. IV. *Of the Delivery of a dead Child.*

In delivering women of a dead child, the operator ought to be certain that the child is dead, which may be known by the falling of the mother's breaſts, the coldneſs of her belly, the thickneſs of her urine, which is attended with a ſtinking ſediment at the bottom; and no motion to be perceived in the child. Alſo when ſhe turns herſelf in her bed, the child

ſways like a lump of lead, and her breath ſtinks though not uſed to do ſo. When the operator is certain that the child is dead, let him or her apply themſelves to the ſaving of the mother, by giving her thoſe things that are moſt powerful in ſerving nature in her operations. But if through weakneſs, the womb is not able to co-operate with nature, ſo that a manual operation is abſolutely neceſſary, let the operator carefully obſerve the following directions, viz. If the child be found dead with its head foremoſt, he muſt take notice that the delivery will be the more difficult, becauſe in this caſe it is not only impoſſible that the child ſhould any ways aſſiſt in its delivery, but the ſtrength of the mother does alſo very much fail her; and thereupon the more ſure and ſafeſt way for him is to put up his left hand, ſliding it as hallow in the palm as he can, into the neck of the womb, into the lower part thereof towards the feet, and then between the infant and the neck of the matrix; and having a hook in the right hand couch it cloſe, and ſlip it above the left hand, between the head of the child and the flat of the hand, fixing it into the bone of the temple towards the eye; or for want of convenient coming at that, obſerve to keep the left hand in its place, gently moving and ſtirring the head with it, and ſo with the right hand hook draw the child forward, encouraging the woman to put forth her utmoſt ſtrength, and always drawing when the woman's pains are upon her. The head being thus drawn forth, the operator muſt with all ſpeed ſlip his hand under the arm-holes of the child, and take it quite forth, giving immediately to the woman a toaſt of fine wheaten bread in a quarter of a pint of tent, to revive and cheriſh her ſpirits. By what I have already ſhewn, the midwife will know what to do in any other caſe that may fall out, remembering, that for a child to come head foremoſt, and the body to follow in a ſtrait line, is the right poſture for the child when it comes to the birth: and if it comes any other way, it will be the wiſdom of the midwife, if poſſible, to bring it to this poſture; but if that cannot be done without very great danger, then put it in a poſture that it may be brought forth by the feet. And if the midwife, perceiving in what poſture the child preſents, or that the woman floods, or any other accident happens, by which ſhe finds it is not in her power to deliver it, it will be beſt for her to ſend for a man-

midwife

midwife in time, rather than put things to the utmoſt extremity.

CHAP. VIII.

SECT. I. *Directions for child bed Women after Delivery.*

AFTER the birth and after birth are brought away, if the woman's body be very weak, keep her not too hot, for extremity of heat weakens nature, and diſſolves the ſtrength: but whether ſhe be weak or ſtrong, let no cold air come near her, for cold is an enemy to the ſpermatic parts; and if cold gets into the womb, it increaſes the after-pains, cauſes ſwellings in the womb, and hurts the nerves. Therefore, if a woman has had very hard labour, 'tis proper after delivery to wrap her in a ſkin of a ſheep, taken off as warm as poſſible, and putting the fleſhy ſide to her reins and belly: if a ſheep ſkin cannot well be had, the ſkin of a hair or rabbit taken off as ſoon as it is killed, may be applied to the ſame parts; and by ſo doing the dilation made in the birth will be cloſed up, and the melancholy blood expelled from thoſe parts; and theſe may be continued during the ſpace of an hour or two. After which, let the woman be ſwathed with a fine linen cloth, about a quarter of a yard in length, chafing her belly before it be ſwathed with the oil of St John's wort; afterwards raiſe up the matrix with a linen cloth, many times folded, then with a little pillow or quilt cover her flank, place the ſwathe ſomewhat above the haunches, winding it indifferently ſtiff, applying at the ſame time a warm cloth to the nipples. Care ſhould be taken not to apply any remedy to keep back the milk, becauſe thoſe remedies which drive back the milk, being of a diſſolving nature, it is improper to apply them to the breaſt during ſuch a diſorder, leſt evil humours ſhould be contracted in the breaſt thereby: and therefore twelve hours at leaſt ought to be allowed for the circulation and ſettlement of the blood.

After the woman has been delivered ſome time, you may make a reſtrictive of the yolks of two eggs, a quarter of a pint of white wine, oil of St John's wort, oil of roſes, plantain, and roſe water of each an ounce, mix them together, fold a linen cloth, and dip therein, warm it before a gentle

fire, and apply it to the breaſts, and the pain of thoſe parts will be greatly eaſed.

But be ſure not to let her ſleep ſoon after her delivery, but let her take ſome broth or caudle, or any other liquid matter that is nouriſhing, about four hours after delivery, and then ſhe may be ſafely permitted to ſleep, if ſhe is diſpoſed, as 'tis probable ſhe will be, being tired with the fatigue of her labour. But before this, as ſoon as ſhe is laid in her bed, let her drink a draught of burnt white wine, in which melt a dram of ſpermaceti. Let her alſo avoid the light for the firſt three days; for labour weakens the eye-ſight. The herb vervain is of ſingular ſervice to the ſight, and may be uſed any way, either boiled in her meats or drink, not having the leaſt offenſive taſte, but many pleaſant virtues. If ſhe ſhould be feveriſh, add the leaves or roots of plantain to it; but if her courſes come not away as they ought, let the plantain alone; and inſtead thereof put mother of thyme. If the womb is foul, which may be known by the impurity of the blood, and its ſtinking and coming away in clotted lumps; or if you ſuſpect any of the after-birth to be left behind, which may ſometimes happen, though the midwife be ever ſo careful and ſkilled, then make her a drink of feverfew, pennyroyal, mother of thyme, boiled in white wine, and ſweetened with ſugar: panada and new laid eggs are the beſt meat for her at firſt; of which let her eat often, and but a little at a time. And let her uſe cinnamon in all her meats and drinks, for it mightily ſtrengthens the womb; let her ſtir very little for ſix or ſeven days after her delivery: and let her talk as little as may be, for that weakens her. If ſhe goes not well to ſtool, give a clyſter made with the decoction of mallows, and a little brown ſugar. After ſhe hath lain in a week, or ſomething more, give her ſuch things as cloſe the womb; to which you may add a little polypodium, both leaves and roots bruiſed, which will purge gently: this is as much in caſes of natural birth as needs at firſt be done.

SECT. II. *In extremity of unnatural Labour.*

Let the woman be ſure to keep a temperate diet: and take care that ſhe does by no means overcharge herſelf, after ſuch an exceſſive evacuation, not being ruled by or giving credit

credit to unſkilful nurſes, who are apt to admoniſh them to feed heartily, the better to repair the loſs of blood; for the blood is not for the moſt part pure, but ſuch as has been detained in the veſſels or membranes, and it is better voided for the health of a woman than kept, unleſs there happens an extraordinary flux of blood: for if her nouriſhment be too much, it may make her liable to a fever, and increaſe the milk to a ſuperfluity, which may be of dangerous conſequence. It is therefore requiſite for the firſt five days eſpecially, that ſhe take moderately panada, broth, poached eggs, jelly of chickens and of calves feet, and French barley broth, each day ſomewhat increaſing the quantity. And if ſhe intend to be nurſe to her child, ſhe may take a little more than ordinary to increaſe the milk by degrees: which muſt be of no continuance, but drawn off either by the child or otherwiſe. In that caſe likewiſe, let her have coriander or fennel-ſeed boiled in her barley broth; and by that means, for the time before mentioned, let her abſtain from meat. If no fever trouble her, ſhe may drink now and then a ſmall quantity of white wine or claret, as alſo ſyrup of maidenhair, or any other ſyrup that is of an aſtringent quality, taking it in a little water well boiled. And after the fear of a fever or contraction of humour to the breaſt is over, ſhe may then be nouriſhed more plentifully with the broths of pullets, capons, pigeons, partridges, mutton, veal, &c. which muſt not be till after eight days at leaſt from the time of the delivery; for by that time the womb will have purged itſelf, unleſs ſome intervening accident ſhould hinder. It will then be expedient to give her cold meats, ſo it be done ſparingly, the better to getter ſtrength; and let her during the time reſt quietly, and free from any diſturbance, not ſleeping in the day time if ſhe can avoid it. If there happens any obſtructions in the evacuation of excrements, the following clyſter may be adminiſtered: Take pelitory of the wall, and of both the mallows, of each a handful; fennel and anniſeed of each two ounces, boil them in the decoction of a ſheep's head, and take of this three quarters, diſſolving it in common honey and courſe ſugar, and of new freſh butter two ounces; ſtrain it well, and adminiſter it clyſter-wiſe. But if this does not operate to your mind, then you may take an ounce of catholicon.

CHAP. IX.

Of a Mole, or falſe Conception; and of Monſters, and monſtrous Births, with the reaſon thereof.

SECT. I. *Of a Mole, or falſe Conception.*

A Mole or falſe Conception is nothing elſe but a maſs or great lump of fleſh burdening the womb. It is an inarticulate piece of fleſh without any form, and therefore differs from monſters, which are both formata and articulata: and then it is ſaid not to be a conception, but a falſe one; which puts a difference between a true conception and a mole; and the difference holds good three different ways: Firſt in the genus, becauſe a mole cannot be ſaid to be an animal. Secondly, It differs in ſpecies, becauſe it hath no human figure, and bears not the character of a man. Thirdly, It differs in the individuum, for it hath no affinity with the parts of that in the whole body, or any particles of the ſame.

There are variety of judgments among authors about the producing cauſe of this effect, ſome affirming that it is produced by the woman's ſeed going into the womb without the man's: but becauſe we have before proved that women have properly no ſeed at all, but only an Ovalium, which is fœcundated by the active principle of the man's ſeed, this opinion needs no confutation. Others ſay it is engendered of the menſtruous blood; but ſhould this be granted, it would follow that maids, by having their courſes ſtopped, might be ſubject to the ſame, which never any yet were. The true cauſe of this carnous conception, which we call a Mole, proceeds both from the man and woman; from corrupt and barren ſeed in the man, and from the menſtruous blood in the woman, both mixed together in the cavity of the womb; and nature finding herſelf weak, (yet deſirous of maintaining the perpetuity of her ſpecies) labours to bring forth a vicious conception rather than none; and not being able to bring forth a living creature generates a piece of fleſh.

This imperfect conception may be known to be ſuch by the following ſigns. The monthly courſes are ſuppreſſed, the

the belly is puffed up, and alſo waxed hard, the breath ſmells, and the appetite is depraved. But you will ſay, theſe are ſigns of a breeding woman in true conception, and therefore theſe cannot diſtinguiſh a mole. To this I anſwer, Though thus they agree, yet they are different in ſeveral reſpects: for a mole may be felt in the womb before the third month, which an infant cannot: nor in the motion of the mole the effects of a ſenſitive power therein, but only cauſed by the faculty of the womb, and of the ſeminal ſpirit diffuſed through the ſubſtance of a mole; for though it has no animal, yet it has a vegetative life; and then the belly is ſuddenly ſwelled where there is a mole. In true conception the belly is firſt contracted, and then riſeth gradually. Another difference is, the belly being preſſed with the hand, the mole gives way, and the hand being taken away, it returns to the place again: but a child in the womb, though preſſed with the hand, moves not preſently, and being removed, returns not at all, or at leaſt very ſlowly. But (to name no more) another very material difference is, that a child continues not in the womb above eleven months at moſt; but a mole ſometimes continues four or five years, ſometimes more and ſometimes leſs, according to its being faſtened to the matrix: for ſometimes it has ſo fallen out that the mole falls away in four or five months; and if it remains until the eleventh month, the legs are feeble, and the whole body appears in a waſting condition, or the belly ſwells bigger and bigger, which is the reaſon that ſome who are thus afflicted think they are hydropical, though it be no ſuch thing; which a woman eaſily knows, if ſhe will but conſider that in a dropſy the legs will ſwell and grow big; in caſes of a mole they conſume and wither. This diſtemper is an enemy to true conception, and of dangerous conſequence; for a woman that breeds a mole is every way more inconvenienced than a woman that is with child, and all the while ſhe keeps it ſhe lives in danger of her life.

The cure of this diſtemper conſiſts chiefly in expelling it as ſoon as may be; for the longer it is kept the worſe it is: and this many times cannot be affected without manual operation; but that being the laſt remedy, all other means ought to be firſt uſed. Amongſt which, Phlebotomy ought not to be omitted; for ſeeing letting of blood cauſeth Abortion, by reaſon it takes away that nouriſhment that ſhould ſuſtain

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the life of the child, why may not this vicious conception be by the ſame means deprived of that vegetative ſap by which it lives? to which end open the liver vein, and then the Saphana in both feet; faſten the cupping glaſſes to the loins and ſides of the belly: which done, let the urinary part be firſt mollified, and the expulſive faculty be provoked to expel the burden. And to looſen the ligatures of the mole, take mallows with roots, three handfuls; pelitory, camomile, violet leaves, melilot roots, of fennel, parſly, mercury, of each two handfuls; fennugreek and lintſeed, of each one pound: boil them in water and make a bath thereof, and let her ſit therein up to the navel. At her going out of the bath let her reins and privities be anointed with this unguent: take ammoniac, laudani, freſh butter of each an ounce: and with oil of lintſeed make an ointment; or inſtead of this, may be uſed unguentum agrippæ or dialthæ. Alſo take aq. bryon compoſit, roots of althæ and mercury, of each a handful: lintſeed and barley meal, of each ſix ounces; boil all theſe with water and honey, and make a plaſter: and the ligaments of the mole being thus looſened, let the expulſive faculty be ſtirred up to expel the mole: for the effecting of which all thoſe medicaments are very proper which bring down the courſes. Therefore take ſavine, madder, valerian, hore hound, ſage, hyſſop, betony, pennyroyal, calamint, hypericon, and with water make a decoction, and give three ounces of it, with an ounce and a half of ſyrup of feverfew. But if theſe remedies prove not available, then muſt the mole be drawn away by manual operation, in the manner following: Let the operator (having placed the woman in a proper poſture, as has been directed in caſes of unnatural labour) ſlide his hand into the womb, and with it draw forth the mole; but if it be grown ſo big that it cannot be drawn away whole, (which is very rare, becauſe it is of a ſoft tender body, and much more pliable than a child) let the operator bring it away by parts, by uſing a crotchet or knife, if it cannot be done otherwiſe. And if the operator finds it is joined and faſtened to the womb, he muſt gently ſeparate it with his finger ends, his nails being pared, putting them by little and little between the mole and the womb; beginning on the ſide where it does ſtick faſt, and ſo purſue it till it be quite looſened, taking great care if it grows too faſt not to rend or hurt the proper ſubſtance of

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the womb, proceeding as in the caſe of an after-burden, that ſtays behind the womb when the ſtring is broken off: but a mole has never any ſtring faſtened to it, nor any burden, from whence it ſhould receive any nouriſhment, but does of itſelf immediately draw it from the veſſels of the womb. And thus much ſhall ſuffice to be ſaid concerning a mole: of which I have ſhewn the cauſe, the ſigns, and the cure.

SECT. II. *Of Monſters, and monſtrous Births.*

Monſters are properly depraved conceptions, and are deemed by the ancients to be excurſions of nature, and are always vicious, either by figure, ſituation, magnitude, or number.

They are vicious in Figure, when a man bears the character of a beaſt; they are vicious in magnitude, when the parts are not equal, or that one part is bigger than the other; and this is a thing very common, by reaſon of ſome excreſcence. They are vicious in ſituation many ways: as if the ears were on the face, or the eyes on the breaſts, or on the legs, as were ſeen in a monſter born at Ravenna in Italy in the year 1570. And laſtly, They are vicious in number, when a man hath two heads, four hands, and two bodies joined, which was the caſe of the monſter born at Zarzara in the year 1550.

As to the cauſe of their generation, it is either divine or natural. The divine cauſe proceeds from the permiſſive will of the great author of our being ſuffering parents to bring forth ſuch deformed monſters, as a puniſhment for their filthy and corrupt affections, which is let looſe unto wickedneſs, like brute beaſts that have no underſtanding: for which reaſon the ancient Romans enacted, that thoſe who were deformed ſhould not be put into religious houſes. And St Jerome, in his time, grieved to ſee the deformed and lame offered up to God in religious houſes; and Kecherman by way of inference, excluded all that were miſhapen, becauſe outward deformity of body is often a ſign of the pollution of the heart, as a curſe laid upon the child for the incontinency of the parents. Yet there are many born depraved, which ought not to be aſcribed to the infirmity of the parents. Let us therefore ſearch out the natural cauſe of their

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generation, which, according to the ancients, who have dived into the ſecrets of nature, is either in the matter or the agent, in the ſeed, or in the womb. The matter may be in fault two ways, by defect or by exceſs. By defect, when the child hath but one arm or leg, &c. by exceſs, when it has three hands or two heads. Some monſters are alſo begotten by womens beſtial and unnatural coition, &c. The agent or womb may be in fault three ways: Firſt, In the forming faculty, which may be too ſtrong or too weak: by which a depraved figure is ſometimes produced. Secondly, The inſtrument, or place of conception; the evil confirmation, or evil diſpoſition whereof will cauſe a monſtrous birth. And thirdly, The imaginative power at the time of conception, which is of ſuch force that it ſtamps a character of the thing imagined upon the child; ſo that the child, or the children of an adulteress, by the mother's imaginative power, may have the neareſt reſemblance to her own huſband, though begotten by any other man. And through this power of imaginative faculty it was that a woman, at the time of conception, beholding the picture of a black-a-moor, conceived and brought forth a child, reſembling an Ethiopian. And that this power of the imagination was well enough known to the ancients, is evident by the example of Jacob, the father of the twelve tribes of Iſrael, who having agreed with his father-in law to have all the ſpotted ſheep for the keeping of his flock, to increaſe his wages took haſel rods, peeling them with white ſtreaks in them, and laid them before the ſheep when they came to drink, and they coupling together, whilſt they beheld the rods, conceived and brought forth ſpotted young. Nor does the imagination work on the child at the time of conception only, but afterwards alſo; as was ſeen in the example of a worthy gentlewoman, who being big with child, and paſſing by a butcher killing meat, a drop of blood ſpirted on her face: whereupon ſhe preſently ſaid that the child would have ſome blemiſh on his face, which proved true; for at the birth in was found marked with a red ſpot.

But beſides the way already mentioned, Monſters are ſometimes produced by other means; to wit, by the undue coition of a man and his wife when her monthly flowings are upon her; which being a thing againſt nature, no won-

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der that it ſhould produce an unnatural iſſue. If therefore a man's deſire be ever ſo great for coition, (as ſometimes it is after long abſence) yet if a woman knows that the cuſtom of women is upon her, ſhe ought not to admit of any embraces, which at that time are both unclean and unnatural. The iſſue of theſe unclean embraces proving often monſtrous, as a juſt puniſhment for ſuch a turpidinous action. Or if they ſhould not always produce monſtrous births, yet are the children thus begotten for the moſt part dull, heavy, ſluggiſh, and defective in the underſtanding, wanting the vivacity and livelineſs which thoſe children who are begotten when women are free from their courſes are endued with.

There has been ſome contending among authors, to know whether thoſe who are born monſters have reaſonable ſouls, ſome affirming, and others denying it; the reſult of both ſides at laſt coming to this, that thoſe who, according to the order of nature, are deſcended from our firſt parents by the coition of a man and woman, though their outward ſhape be deformed and monſtrous, have notwithſtanding reaſonable ſouls; but thoſe monſters that are not begotten by man, but are the product of a woman's unnatural luſt, and copulating with other creatures, ſhall periſh as the brute beaſts by whom they were begotten, not having a reaſonable ſoul. The ſame being alſo true of imperfect and abortive births.

There are ſome of opinion that monſters may be engendered by infernal ſpirits; but notwithſtanding Ægidius Facius pretended to believe it with reſpect to a deformed monſter, born at Cracovia; and Hieronimus Carmanus writeth of a maid that was got with child by the devil. Being of a wicked ſpirit, and not capable of having human ſeed, how is it poſſible he ſhould beget a human creature? If they ſay that the devil may aſſume to himſelf a dead body, and enliven the faculties of it, and thereby make it able to generate, I anſwer, that though we ſuppoſe this could be done, which I believe not, yet that body muſt bear the image of the devil; and it borders upon blaſphemy, to think the all-wiſe and good Being would ſo far give way to the worſt of ſpirits as to ſuffer him to raiſe up his diabolical offſpring: for in the ſchool of nature we are taught the contrary, viz. that like begets like; whence it follows that a man cannot be born of a devil.

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The firſt I ſhall preſent is a moſt frightful monſter indeed, repreſenting an hairy child. It was covered over with hair like a beaſt. That which rendered it yet more frightful was, that its navel was in the place where his noſe ſhould ſtand, and his eyes placed where his mouth ſhould have been, and its mouth was in the chin. It was of the male kind, and born in France in the year 1597. Thus

A boy was born in Germany with one head and one body, but having 4 ears, 4 arms, 4 thighs, 4 legs, and 4 feet. This birth the learned, who beheld it, judged to proceed from the redundance of the ſeed; but there not being enough for twins, nature form'd what ſhe could, and ſo made the moſt of it. This child lived ſome years, and though he had 4 feet, he knew not how to go; by which we may ſee the wiſdom of nature, or rather the good of nature, in the formation of the body of man.

Heav'n in our firſt formation did provide
Two arms and legs: but what we have be d:
Renders us monſtrous and miſhapen too,
Nor have we any work for them to do.
Two arms, two legs, are all that we can uſe,
And to have more there s no wiſe man will chuſe.

In the time of king Henry III. a woman was delivere!

of child, having 2 heads and 4 arms, and the reſt was a twin under the navel: and then beneath all the reſt was ſingle, as appears in the figure. The heads were ſo placed that they looked contrary ways, and each had two diſtinct arms and hands: they would both laugh, both ſpeak, and both cry, and eat and be hungry together. Sometimes the one would ſpeak, and the other would keep ſilence, and ſometimes both would ſpeak together. It was of the female ſex; and though it had two mouths, and did eat with both, yet there was but one fundament to diſburden nature. It lived ſeveral years, but the one outlived the other three years, carrying the dead one, (for there was no parting them) till the other fainted with the burden, and more with the ſtink of the dead carcaſe.

A child was born in Flanders which had two heads and four arms, ſeeming like two girls joined together, having two of their arms lifted up between and above their heads; the thighs being placed as it were croſs one another, according to the figure. How long they lived I had no account of.

Nature to us ſometimes does Monſters ſhow;
That we by them may our own mercies know;
And thereby ſin's deformity may ſee,
Than which there's nothing can more monſtrous be.

PART

PART III.

Diſplaying the Secrets of Nature, relating to Phyſiognomy.

CHAP. I.

SECT. I. *Of Phyſiognomy, ſhewing what it is, and from whence it is derived.*

PHyſiognomy is an ingenious ſcience, or knowledge of nature, by which the inclination and diſpoſitions of every creature are underſtood: and becauſe ſome of the members are uncompounded, and entire of themſelves, as the tongue, the heart, &c.; and ſome are of a mixed nature, as the eyes, the noſe, and others; we therefore ſay that there are many ſigns which agree and live together, which inform a wiſe man how to make his judgment before he be too raſh to deliver it to the world.

Nor is it to be eſteemed a fooliſh or idle art, ſeeing it is derived from the ſuperior bodies: for there is no part of the face of a man but what is under the peculiar influence or government not only of the ſeven planets, but alſo of the twelve ſigns of the Zodiac: and the diſpoſition, vices, virtues, and fatality, either of a man or woman, are plainly foretold, if the perſon pretending to the knowledge thereof be an artiſt, which, that my reader may hereby attain to, I ſhall ſet theſe things in a clearer light.

The reader ſhould remember that the forehead is governed by Mars: the right eye is under the dominion of Sol: the left eye is ruled by the moon, or Luna: the right ear is the care of Jupiter: the left of Saturn: the rule of the noſe is claimed by Venus, which by the way, is one reaſon that in all unlawful venereal encounters, the noſe is too ſubject to bear the ſcars which are gotten in thoſe wars; and the nimble Mercury, the ſignificator of eloquence, claims the dominion of the mouth, and that very juſtly.

Thus have the ſeven planets divided the face among them,

but not with ſo abſolute a ſway, but that the twelve ſigns of the Zodiac do alſo come in for a part: And therefore the ſign Cancer preſides in the uppermoſt part of the forehead, and Leo attends upon the right eyebrow, as Sagittarius does upon the right eye, and Libra upon the right ear: upon the left eye and eyebrow you will find Aquarius and Gemini, and Aries taking care of the left ear; Taurus rules in the middle of the forehead, and Capricorn the chin: Scorpio takes upon him the protection of the noſe; Virgo claims the precedence of the right cheek, and Piſces of the left. And thus the face of man is canton'd out amongſt the Signs and Planets; which being carefully attended to, will ſufficiently inform the artiſts how to paſs a judgment. For according to the ſign or planet ruling, ſo alſo is the judgment to be of the part ruled, which all thoſe that have underſtanding know eaſily how to apply.

In the judgment that is to be made from Phyſiognomy there is a great difference betwixt a man and a woman; the reaſon is, becauſe, in reſpect of the whole compoſition, men more fully comprehend it than women do, as may evidently appear by the manner and method we ſhall give in the following ſection. Wherefore the judgments which we ſhall paſs in every Chapter, do properly concern a man, as comprehending the whole Species, and but improperly the woman, as being but a part thereof, and derived from the man; and therefore whoever is called to give judgment on ſuch and ſuch a face ought to be wary about all the lines and marks that belong to it; reſpect being alſo had to the ſex: for when we behold a man whoſe face is like unto a woman's, and we paſs a judgment upon it, having diligently obſerved it, and not on the face only but on other parts of the body, as his hands, &c. In like manner we alſo behold the face of a woman, who in reſpect of her fleſh and blood is like unto a man, and in the diſpoſure alſo of the greater parts of her body. But does phyſiognomy give the ſame judgment on her as it does of a man that is like unto her? by no means, but far otherwiſe; in regard that the conception of the woman is much different from that of a man, even in thoſe reſpects which are ſaid to be common. Now, in thoſe common reſpects, two parts are attributed to a man, a third part to a woman.

Wherefore, it being our intention to give you an exact account,

account, according to the rule of phyſiognomy, of all and every part of the members of the body, we will begin with the head, as it hath relation only to man and woman, and not any other creature, that the work may be more obvious to every reader.

CHAP. II.

Of the Judgment of Phyſiognomy.

HAIR that hangs down without curling, if it be of a fair complexion, thin, and ſoft withal, ſignifies a man to be naturally faint-hearted, and of a weak body, but of a quiet and harmleſs diſpoſition. Hair that is big, and thick, and ſhort withal, denotes a man to be of a ſtrong conſtitution, ſecure, bald, deceitful, and, for the moſt part, unquiet, and vain, luſting after beauty, and more fooliſh than wiſe, though fortune may favour him. He whoſe hair is partly curled and partly hanging down, is commonly a wiſe or a very great fool, or elſe as very a knave as he is a fool. He whoſe hair groweth thick on his temples and his brow, one may at the firſt ſight certainly conclude that ſuch a man is by nature ſimple, vain, luxurious, luſtful, credulous, clowniſh in his ſpeech and converſation, and dull in his apprehenſion. He whoſe hair not only curls very much, but buſheth out, and ſtands on end; if the hair be white, or of a yellowiſh colour, he is by nature proud and bold, dull of apprehenſion, ſoon angry, a lover of venery, and given to lying, malicious, and ready to do any miſchief. He whoſe hair riſes in the corners of his temples, and is groſs and rough withal, is a man highly conceited of himſelf, inclined to malice, but cunningly conceals it, is very courtly, and a lover of new faſhions. He who hath much hair, that is to ſay whoſe hair is thick all over his head, is naturally vain and very luxurious, of a good digeſtion, eaſy of belief, and ſlow of performance, of a weak memory, and for the moſt part unfortunate. He whoſe hair is of reddiſh complexion, is for the moſt part, if not always, proud, deceitful, detracting, venerous, and full of envy. He whoſe hair is extraordinary fair, is for the moſt part a man fit for all praiſe worthy enterprizes, a lover of honours, and much more inclined to do good than evil; laborious and careful to perform whatſoever is committed to

his care, ſecret in carrying on any buſineſs, and fortunate. Hair of a yellowiſh colour ſhews a man to be good conditioned, and willing to do any thing, fearful, ſhamefaced, and weak of body, but ſtrong in the abilities of the mind, and more apt to remember than revenge an injury. He whoſe hair is of a browniſh colour, and curleth not too much nor too little, is a well diſpoſed man, inclined to that which is good, a lover of peace, cleanlineſs, and good manners. He whoſe hair turns gray or hoary in the time of his youth, is generally given to women, vain, falſe, unſtable, and talkative. Note, that whatſoever ſignification the hair has in men it has the ſame in women alſo.

Thus does wiſe Nature make our very hair
Shew all the paſſions that within us are;
If to the bottle we are moſt inclin'd,
Or if we fancy moſt the female kind:
If into virtue's paths our minds we bend,
Or if to vicious ways our footſteps tend,
A ſkilful artiſt can unfold the ſame,
And from our hair a certain judgment frame:
But ſince our perriwigs are come in faſhion,
No room is left for ſuch an obſervation.

The forehead that riſeth in a round, ſignifies a man liberally merry, of a good underſtanding, and generally inclined to virtue. He whoſe forehead is fleſhy, and the bone of the brow jutting out, and without wrinkles, is a man much inclined to ſuits of law, contentious, vain, deceitful, and addicted to follow ill courſes. He whoſe forehead is very low and little, is of a good underſtanding, magnanimous, but extremely bold and confident, and a great pretender to love and honour. He whoſe forehead ſeems ſharp, and pointing up in the corners of his temple, ſo that the bone ſeems to jut forth a little, is a man naturally weak and fickle, and weak in his intellectuals. He whoſe brow upon the temples is full of fleſh is a man of a great ſpirit, proud, watchful, and of a groſs underſtanding. He whoſe brow is full of wrinkles, and hath as it were a ſeem coming down the middle of the forehead, ſo that a man may think he hath two foreheads, is one that is of a great ſpirit, a great wit, void of deceit, and yet of a hard fortune. He who has a full large forehead, and a little round withal, deſtitute of hair, or at leaſt that has little on it, is bold, malicious, high ſpirited, full of choler, and

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apt to tranſgreſs beyond all bounds, and yet of a good wit, and very apprehenſive. He whoſe forehead is long and high, and jutting forth, and whoſe face is figured, almoſt ſharp and picked towards the chin, is one reaſonably honeſt, but weak and ſimple, and of a hard fortune.

Who views men well may on their vices hit,
For ſome mens crimes are in their foreheads writ;
But the reſolved man outbraves his fate,
And will be good altho' unfortunate.

Thoſe eye-brows that are much arched, whether in man or woman, and which by frequent motion elevate themſelves, ſhew the perſon to be proud, high-ſpirited, vain-glorious, bold and threatening; a lover of beauty, and indifferently inclined to either good or evil. He whoſe eye-lids bend downward when he ſpeaks to another man, or when he looks upon him, and who has a kind of a ſkulking look, is by nature a penurious wretch, cloſe in all his actions, of a very few words, but full of malice in his heart. He whoſe eye-brows are thick, and have but little hair upon them, is but weak in his intellectuals, and too credulous, very ſincere, ſociable, and deſirous of good company. He whoſe eye-brows are folded; and the hair thick, and bending downwards, is one that is clowniſh and unlearned, heavy, ſuſpicious, miſerable, envious, and one that will cheat and cozen you if he can, and is only to be kept honeſt by good looking to. He whoſe eye-brow hath but ſhort hair, and of a whitiſh colour, is fearful, and very eaſy of belief, and apt to undertake any thing. Thoſe on the other ſide whoſe eye-brows are black, and the hair of them but thin, will do nothing without great conſideration, and are bold and confident of the performance of what they undertake; neither are they apt to believe any thing without reaſon for ſo doing.

Thus by the eye-brows womens minds we know,
Whether they're white or black, or quick or ſlow:
And whether they'll be cured or be kind,
By looking in their eye-brows we may find.

If the ſpace between the eye-brows be of more than ordinary diſtance, it ſhews the perſon to be hard hearted, envious, cloſe and cunning, apprehenſive, gready of novelties, of a vain fortune, addicted to cruelty more than love. But

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thoſe men whoſe eye-brows are at leſſer diſtance from each other, are for the moſt part of a dull underſtanding; yet ſubtile enough in their dealings, and of an uncommon boldneſs, which is often attended with a great felicity; but that which is moſt commendable in them is, that they are moſt ſure and conſtant in their friendſhip.

Great and full eyes in either man or woman, ſhew the perſon to be for the moſt part ſlothful, bold, envious, a bad concealer of ſecrets, miſerable, vain, given to lying, and yet of a bad memory, ſlow in invention, weak in his intellectuals, and yet very much conceited of that little knack of wiſdom he thinks himſelf maſter of. He whoſe eyes are hallow in his head, and therefore diſcerns excellently well at a great diſtance, is one that is ſuſpicious, malicious, furious, perverſe in his converſation, of an extraordinary memory, bold, cruel, and falſe, both in words and deeds, threatening, vicious, luxurious, proud, envious and treacherous: But he whoſe eyes are as it were ſtarting out of his head, is a ſimple fooliſh perſon, ſhameleſs, very ſervile, and eaſy to be perſuaded either to vice or virtue He who looks ſtudiouſly and acutely with his eyes and eye-lids downwards, denotes thereby to be of a malicious nature, very treacherous, falſe, unfaithful, envious, miſerable, impious towards God, and diſhoneſt towards men. He whoſe eyes are ſmall and conveniently round, is baſhful and weak, very credulous, liberal to others, and even in his converſation. He whoſe eyes look a ſquint, is thereby denoted to be a deceitful perſon, unjuſt, envious, furious, a great liar, and as the effect of all this, miſerable. He who hath a wandering eye, and which is rolling up and down, is for the moſt part a vain ſimple deceitful man, luſtful, treacherous, or high minded, an admirer of the fair ſex, and one eaſy to be perſuaded to virtue or vice. He or ſhe whoſe eyes are twinkling, and which move foreward or backward, ſhew the perſon to be luxurious, unfaithful and treacherous, preſumptuous, and hard to believe any thing that is ſpoken. If a perſon has any greenneſs mingled in the white of his eyes, ſuch is commonly ſilly, and often very falſe, vain and deceitful, unkind to his friends, a great concealer of his own ſecrets, and very choleric. Thoſe whoſe eyes are every way rolling up and down, or they who ſeldom move their eyes, and when they do, do as it were draw their eyes inwardly, and accurately faſten them upon ſome object, ſuch

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are by their inclinations very malicious, vain glorious, ſlothful, unfaithful, envious, falſe and contentious. They whoſe eyes are addicted to blood-ſhot, are naturally choleric, proud, diſdainful, cruel without ſhame, perfidious, and much inclined to ſuperſtition. They that have eyes like thoſe of oxen, are perſons of good nutriment, but of a weak memory, are dull of underſtanding, and ſilly in their converſation. But they whoſe eyes are neither too little nor big, and inclined to a black, do ſignify a man mild, peaceable, honeſt, witty, and of a good underſtanding: and one that when need requires, will be ſerviceable to his friends.

Thus from the eyes we ſeveral things may ſee,
By nature's art of phyſiognomy;
That no man ſcarce can make a look aſtray,
But we thereby ſome ſecret ſymptoms may
Diſcern of his intention, and foreſee
Unto which path his ſteps directed be;
And this may teach us goodneſs more to prize,
For where one's good there's twenty otherwiſe.

A long and thin noſe denotes a man bold, furious, angry, vain, eaſy to be perſuaded either to good or evil, weak and credulous. A long noſe and extended, the tip of it bending downwards, ſhews the perſon to be wiſe, diſcreet, ſecret and officious, honeſt and faithful, and one who will not be overreached in bargaining. A bottle-noſe is what denotes a man to be impetuous in the obtaining his deſires; alſo vain, falſe, luxurious, weak, and an uncertain man, apt to believe, and eaſy to be perſuaded. A noſe broad in the middle, and leſs towards the end, denotes a vain talkative perſon, a liar, and one of hard fortune. He who hath a long and great noſe is an admirer of the fair ſex, and well accompliſhed for the wars of Venus, but ignorant of the knowledge of any thing that's good; extremely addicted to vice; aſſiduous in the obtaining what he deſires, and very ſecret in the proſecution of it; and though very ignorant, would fain be thought very knowing.

A noſe very ſharp on the tip of it, and neither too long nor too ſhort, too thick nor too thin, denotes the perſon, if a man, to be of a fretful diſpoſition, always pining and peeviſh; and if a woman, a ſcold, or contentious, wedded to her own humours; of a moroſe and dogged carriage, and if married, a

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plague to her husband. A nose very round at the end of it, and having but little nostrils, shews the person to be munificent and liberal, true to his trust, but withal very proud, credulous and vain. A nose very long and thin at the end of it, and something round withal, signifies one bold in his discourse, honest in his dealings, patient in receiving, and slow in offering injuries, but yet privately malicious. He whose nose is naturally more red than any other part of his face, is thereby denoted to be covetous, impious, luxurious, and an enemy to goodness. A nose that turns up again, and is long and full on the tip of it, shews the person that has it to be bold, proud, covetous, envious, luxurious, a liar and deceiver, vain glorious, unfortunate and contentious. He whose nose riseth high in the middle, is prudent and politic, and of great courage, honourable in his actions, and true to his word. A nose big at the end shews a person to be of a peaceable disposition, industrious and faithful, and of a good understanding. A very wide nose, with wide nostrils, denotes a man dull of apprehension, and inclined more to simplicity than wisdom, and withal contentious, vain glorious, and a liar.

Thus from the nose our physiognomist
Can smell mens inclinations if he list:
And from its colour and its make
Of vice and virtue a survey can make.

When the nostrils are close and thin, they denote a man to have but little testicles, and to be very desirous of the enjoyment of women, but modest in his conversation. But he whose nostrils are great and wide, is usually well hung and lustful; but withal of an envious, bold and treacherous disposition; and though dull of understanding, yet confident enough.

Thus those who chiefly mind the brutal part
May learn to chuse a husband by this art.

A great and wide mouth shews a man to be bold, warlike, shameless, and stout, a great liar, and as great a talker, and also a great eater; but as to his intellectuals he is very dull, being for the most part very simple. A little mouth shews the person to be of a quick and pacific temper, somewhat fearful, but faithful, secret, modest, bountiful, and but a little eater. He whose mouth smells of a bad breath, is one of a corrupted

a corrupted liver or lungs, is oftentimes vain, wanton, deceitful, of indifferent intellects, envious, covetous, and a promiſe breaker. He that has a ſweet breath is the contrary.

Thus from the mouth itſelf we likewiſe ſee
What ſigns of good and bad may gather'd be;
For let the wind blow eaſt, weſt, north, or ſouth,
Both good and bad proceed out of the mouth.

The lips, when they are very big and blubbering, ſhew a perſon to be credulous, fooliſh, dull, and ſtupid, and apt to be enticed to any thing. Lips of a different ſize denote a perſon to be diſcreet, ſecret in all things, judicious and of a good wit, but ſomewhat haſty. To have lips well coloured, and more thin than thick, ſhews a perſon to be good humoured in all things, and more eaſily perſuaded to good than evil. To have one lip bigger than the other ſhews variety of fortunes, and denotes the party to be of a dull ſluggiſh temper, and but of a very indifferent underſtanding, as being much addicted to folly.

The lips they ſo much dote on for a kiſs
Oft tell fond lovers when they do amiſs.

When the teeth are ſmall, and but weak in performing the office, and eſpecially if they are ſhort and few, though they ſhew the perſon to be of a weak conſtitution, yet they denote him to be of a meek diſpoſition, honeſt, faithful, and ſecret in whatſoever he is entruſted with. To have ſome teeth longer and ſhorter than others, denotes a perſon to be of a good apprehenſion, but bold, diſdainful, envious and proud. To have teeth very long, and growing ſharp towards the end, if they are long and chewing, and thin, denotes the perſon to be envious, gluttonous, bold, ſhameleſs, unfaithful, and ſuſpicious. When the teeth look very brown or yellowiſh, whether they be long or ſhort, it ſhews the perſon to be of a ſuſpicious temper, envious, deceitful and turbulent. To have teeth ſtrong, and cloſe together, ſhews the perſon to be of a long life, a deſirer of novelties, and things that are fair and beautiful, but of a high ſpirit, and one that will have his humour in all things; he loves to hear news, and afterwards to repeat it, and is apt to entertain any thing to his behalf. To have teeth thin and weak, ſhews a weak feeble man,

man, and one of ſhort life, and of a weak apprehenſion; but chaſte, ſhamefaced, tractable, and honeſt.

Thus from the teeth the learned can pretend
Whether man's ſteps to vice or virtue bend.

A tongue too ſwift in ſpeech ſhews a man to be downright fooliſh, or at beſt but a very vain wit. A ſtammering tongue, or one that ſtumbles in the mouth, ſignifies a man of a weak underſtanding, and of a wavering mind, quickly in rage, and ſoon pacified. A very thick and rough tongue denotes a man to be apprehenſive, ſubtile, and full of compliments, yet vain and deceitful, treacherous, and prone to impiety. A thin tongue ſhews a man of wiſdom and ſound judgment, very ingenious, and of an affable diſpoſition, yet ſometimes timorous and too credulous.

No wonder 'tis that from mens ſpeech we ſee
Whether they wiſe or whether fooliſh be:
But from a ſilent tongue our authors tell
The ſecret paſſions that within men dwell.

A great and full voice in either ſex ſhew them to be of a great ſpirit, confident, proud and wilful. A faint and weak voice, attended with but little breath, ſhews a perſon to be of a good underſtanding, a nimble fancy, a little eater, but weak of body, and of a timorous diſpoſition. A loud and ſhrill voice which ſounds clearly, denotes a perſon provident, ſagacious, true, and ingenious, but withal capricious, vain-glorious, and too credulous. A ſtrong voice when a man ſings, denotes him to be of a ſtrong conſtitution and a good underſtanding, neither too penurious nor too prodigal, alſo ingenious, and an admirer of the fair ſex. A weak and trembling voice ſhews the owner of it to be envious, ſuſpicious, ſlow in buſineſs, feeble and fearful. A loud ſhrill and unpleaſant voice ſignifies one bold and valiant, but quarrelſome and injurious, and altogether wedded to his own humours, and governed by his own counſels. A rough and horſe voice, whether in ſpeaking or ſinging, declares one to be a dull and heavy perſon, of much guts and little brains. A full and yet mild voice and pleaſing to the hearer, ſhews the perſon to be of a quiet and peaceable diſpoſition (which is a great virtue, and rare to be found in a woman) and alſo very thrifty and ſecret,

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not prone to anger, but of a yielding temper. A voice beginning low or in the baſe, and ending high in the treple, denotes a perſon to be violent, angry, bold, ſecure.

Thus by our voice 'tis to an artiſt known
Unto what virtue or what vice we're prone;
And he that will of a good wife make choice
May chuſe her by obſerving of her voice.

A thick and full chin abounding with too much fleſh ſhews a man inclined to peace, honeſt and true to his truſt, but ſlow in invention, and eaſy to be drawn either to good or evil. A peeked chin, and reaſonably full of fleſh, ſhews a perſon to be of a good underſtanding, a high ſpirit, and laudable converſation. A double chin ſhews a peaceable diſpoſition, but dull of apprehenſion, vain, credulous, a great ſupplanter, and ſecret in all his actions. A crooked chin bending upwards and peeked for want of fleſh, is by the rule of phyſiognomy according to nature a very bad man, being proud, impudent, envious, threatening, deceitful, prone to anger and treachery, and a great thief.

Thus from the forehead to the chin we've ſhown
How mankind's inclinations may be known;
From which th' obſerving reader muſt find
We're more to evil than to good inclin'd.

The hair of young men uſually begins to grow down upon their chin at 15 years of age, and ſometimes ſooner. Theſe hairs proceed from the ſuperfluity of heat; the fumes whereof aſcend to their chins, like ſmoke to the funnel of a chimney; and becauſe it cannot find any open paſſage by which it may aſcend higher, it vents itſelf forth in the hairs, which are called the beard. There are very few or almoſt no women at all that have hair on their cheeks: and the reaſon is, thoſe humours which cauſe hair to grow on the cheeks of a man are by a woman evacuated in their monthly courſes, which they have more or leſs, according to the heat or coldneſs of their conſtitution, and the age and motion of the moon, of which we have ſpoken at large in the firſt part of this book. Yet ſometimes women of a hot conſtitution have hair to be ſeen on their cheeks, but more commonly on their lips, or near unto their mouths, where the heat moſt aboundeth. And where this happens ſuch women are much addicted to

the company of men, and of a ſtrong and manly conſtitution. A woman who hath little hair on her cheeks, or about her mouth and lips, is of a good complexion, weak conſtitution, ſhame faced, mild, and obedient; whereas a woman of a more hot complexion is quite otherwiſe. But in a man a beard well compoſed and thick of hair, ſignifies a man of a good nature, honeſt, loving, ſociable, and full of humanity: on the contrary, he that hath but little beard, is for the moſt part proud, pining, peeviſh, and unſociable. They who have no beards have always ſhrill and ſtrange kind of ſqueaking voices, and are of a weak conſtitution, which is apparent in the caſe of eunuchs, who, after they are deprived of their virility, are transformed from the nature of men into the condition of women.

Of men and womens beards I might ſay more,
But prudence bids me this diſcourſe give o'er.

Great and thick ears are certain ſigns of a fooliſh perſon, or a bad memory and worſe underſtanding. But ſmall and thin ears ſhew a perſon to be of good wit, grave, ſecret, thrifty, modeſt, reſolute, of a good memory, and one willing to ſerve his friend. He whoſe ears are longer than ordinary, is thereby ſignified to be a bold man, uncivil, vain, fooliſh, ſerviceable to another more than himſelf, and a man of ſmall induſtry, but of a great ſtomach.

Who his juſt praiſe unwillingly does hear,
Shews a good life as well as a good ear.

A face apt to ſweat on every motion, ſhews the perſon to be of a hot conſtitution, vain and luxurious, of a good ſtomach, but of a bad underſtanding, and a worſe converſation. A very fleſhy face ſhews the perſon to be of a fearful diſpoſition, but a merry heart, and withal bountiful and diſcreet, eaſy to be intreated, and apt to believe every thing. A lean face, by the rules of phyſiognomy, denotes the perſon to be of a good underſtanding, but ſomewhat capricious and diſdainful in his converſation. A little and round face ſhews a perſon to be ſimple, very fearful, of a bad memory, and a clowniſh diſpoſition. A plump face full of carbuncles ſhews a man to be a great drinker of wine, vain, daring, and ſoon intoxicated. A face red or high coloured, ſhews a man to be much inclined to choler, and one that will be ſoon angry, and not eaſily

eaſily pacified. A long and lean face ſhews a man to be both bold in ſpeech and action, but withal fooliſh, quarrelſome, proud, injurious, and deceitful. A face every way of a due proportion denotes an ingenious perſon, one fit for any thing, and very much inclined to what is good. One of a broad full fat face is, by the rules of phyſiognomy, of a dull lumpiſh heavy conſtitution, and that for one virtue hath three vices. A plain flat face without any riſing ſhews a perſon to be very wiſe, loving, and courtly in his carriage, faithful to his friend, and patient in adverſity. A face ſinking down a little, with croſſes in it, inclining to leanneſs, denotes a perſon to be very laborious, but envious, deceitful, falſe, quarrelſome, vain, and ſilly, of a dull and clowniſh behaviour. A face of a handſome proportion, and more inclining to fat than lean, ſhews a perſon juſt in his actions, true to his word, civil and reſpectful in his behaviour, of an indifferent underſtanding, and of an extraordinary memory. A crooked face, long and lean, denotes a man endued with as bad qualities as the face is with ill features. A face broad about the brows, and ſharper and leſs as it grows towards the chin, ſhews a man ſimple and fooliſh in managing his affairs, vain in his diſcourſe, envious in his nature, deceitful, quarrelſome, and rude in his converſation. A face well coloured, full of good features, and of an exact ſymmetry, and a juſt proportion in all its parts, and which is delightful to look upon, is commonly the Index of a fairer mind, and ſhews a perſon to be well diſpoſed: but withal declares that virtue is not ſo impregnably ſeated there, but that by ſtrong temptations (eſpecially of the fair ſex) it may be ſupplanted and overcome by vice. A pale complexion ſhews the perſon not only to be fickle but very malicious, treacherous, falſe, proud, preſumptuous, and extremely unfaithful. A face well coloured ſhews the perſon to be of a praiſe-worthy diſpoſition, and a ſound complexion, eaſy of belief, and reſpectful to his friend, ready to do a courteſy, and very eaſy to be drawn to any thing.

Thus phyſiognomy readeth in each face
What vice or virtue we're moſt prone t'embrace;
For in man's face there hardly is a line
But of ſome inward paſſion 'tis a ſign;
And he that reads this ſection o'er may find
The faireſt face has ſtill the cleareſt mind.

A great head and round withal denotes the perſon to be ſecret, and of great application in carrying on buſineſs, and alſo ingenious, and of a large imaginative faculty and invention; and likewiſe laborious, conſtant, and honeſt. The head whoſe gullet ſtands forth, and inclines towards the earth, ſignifies a perſon thrifty, wiſe, peaceable, ſecret, of a retired temper, and conſtant in the management of his affairs. A long head and face, and great withal, denotes a vain fooliſh and idle perſon, a weak perſon, credulous, and very envious. To have one's head always ſhaking, and moving from ſide to ſide, denote as ſhallow, weak perſon, unſtable in all his actions, given to lying, a great deceiver, a great talker, prodigal in all his fortunes. A big head and broad face ſhew a man to be very courageous, a great hunter after women, very ſuſpicious, bold and ſhameleſs. He who hath a very big head, but not ſo proportionate as it ought to the body, if he hath a ſhort neck and crooked gullet, is generally a man of apprehenſion, wiſe, ſecret, ingenious, of ſound judgment, faithful, true, and courteous to all. He who hath a little head, and long ſlender throat, is for the moſt part a man very weak, yet apt to learn, but unfortunate in his actions. And ſo much ſhall ſuffice with reſpect to judgment from the head and face.

CHAP. III.

Of judgments drawn from ſeveral other parts of man's body, &c.

IN the body of a man the head and face are the principal parts, being the Index which heaven has laid open to every one's view to make a judgment therefrom, therefore I have been the larger in my judgment from the ſeveral parts thereof. But as to the other parts, I ſhall be much more brief, as not being ſo obvious to the eyes of men; yet I would proceed in order.

The throat, if it be white, whether it be fat or lean, ſhews a man to be vain-glorious, timorous, wanton, and very much ſubject to choler. If the throat be ſo thin and lean that the veins appear, it ſhews a man to be weak, ſlow, and of a dull and heavy conſtitution.

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A long neck ſhews one to have a long and ſlender foot, and that the perſon is ſtiff and inflexible either to good or evil. A ſhort neck ſhews one to be witty and ingenious, but deceitful and inconſtant, well ſkilled in the uſe of arms, and yet cares not to uſe them, but is a great lover of peace and quietneſs.

A lean ſhoulder bone ſignifies a man to be weak, timorous, peaceful, not laborious, and yet fit for any employment. He whoſe ſhoulder bones are of a great bigneſs is commonly, by the rules of phyſiognomy, a ſtrong man, faithful, but unfortunate; ſomewhat dull of underſtanding, very laborious, a great eater and drinker, and one equally contented in all conditions. He whoſe ſhoulder-bone ſeems to be ſmooth, is by the rule of nature modeſt in his look, and temperate in all his actions, both at bed and board. He whoſe ſhoulder bone bends, and is crooked inwardly, is commonly a dull perſon, and withal deceitful.

Long arms hanging down, and touching the knees, though ſuch arms are rarely ſeen, denotes a man liberal, but withal vain-glorious, proud and inconſtant. He whoſe arms are very ſhort in reſpect of the ſtature of his body, is thereby ſignified to be a man of high and gallant ſpirit, of a graceful temper, bold and warlike. He whoſe arms are full of bones, ſinews, and fleſh, is a great deſirer of novelties, and beauteous, and one that is very credulous, and apt to believe every thing. He whoſe arms are very hairy, whether they be lean or fat, is, for the moſt part, a luxurious perſon, weak in body and mind, very ſuſpicious, and malicious withal. He whoſe arms have no hair on them at all, is of a weak judgment, very angry, vain, wanton, credulous, eaſily deceiveth himſelf, and yet a great deceiver of others, no fighter, and very apt to betray his deareſt friends.

CHAP. IV.

Of Palmiſtry, ſhewing the various judgments drawn from the hand.

BEING engaged in this third part to ſhew what judgment may be drawn, according to the phyſiognomy, from the ſeveral parts of the body, and coming in order to ſpeak

of the hands, it has put me under a neceſſity of ſaying ſomething about palmiſtr'y, which is a judgment, made of the conditions, inclinations, and fortunes of men and women, from the various lines and characters nature has imprinted in their hands, which are almoſt as various as the hands that have them.

The reader ſhould remember, that one of the lines of the hand, and which indeed is reckoned the principal, is called, the line of life; this line incloſes the thumb, ſeparating it from the hollow of the hand. The next to it, which is called the natural line, takes its beginning from the riſing of the forefinger, near the line of life, and reaches to the table line, and generally makes a triangle. The table line, commonly called the line of fortune, begins under the little finger, and ends near the middle-finger. The girdle of Venus, which is another line ſo called, begins near the firſt joint of the little-finger, and ends between the fore-finger and the middle finger. The line of death is that which plainly appears in a counter line to that of life, and is called the ſiſter line, ending uſually as the other ends; for when the line of life is ended, death comes, and it can go no farther. There are lines in the fleſhy parts, as in the ball of the thumb, which is called the mount of Venus; under each of the fingers are alſo mounts, which are each one governed by ſeveral Planets; and the hollow of the hand is called the Plain of Mars; thus

The thumb we to Dame Venus' rule commit,
Jove the fore-finger ſways as he thinks fit:
Old Saturn does the middle finger guide:
O'er the ring-finger Sol does ſtill preſide:
The outſide drawn pale Cynthia does direct;
And into th' hollow Mars does moſt inſpect:
The little finger does to Mercury fall;
Which is the nimbleſt Planet of them all.

I proceed to give judgment from theſe ſeveral lines: In Palmiſtry, the left hand is chiefly to be regarded, becauſe therein the lines are moſt viſible, and have the ſtricteſt communication with the heart and brain. In the next place, obſerve the line of life, and if it be fair, extending to its full length, and not broken with an intermixture of croſs lines, it ſhews long life and health: and it is the ſame if a double line of life appears, as there ſometimes does. When the

ſtars

ſtars appear in this line, it is a ſignification of great loſſes and calamities: if on it there be the figures of two O's or a Y, it threatens the perſon with blindneſs; if it wraps itſelf about the table-line, then does it promiſe wealth and honour to be attained by prudence and induſtry If the line be cut, jagg'd at the upper end, it denotes much ſickneſs; if this line be cut by any lines coming from the Mount of Venus, it declares the perſon to be unfortunate in love and buſineſs alſo, and threatens him with ſudden death. A croſs between the line of life and the table-line ſhews the perſon to be very liberal and charitable, and of a noble ſpirit. Let us now ſee the ſignification of the table-line.

The table line, when broad and of a lively colour, ſhews a healthful conſtitution, and a quiet contented mind, and of a courageous ſpirit: but if it have croſſes towards the little finger, it threatens the party with much affliction by ſickneſs. If the line be double, or divided into three parts at any of the extremities, it ſhows the perſon to be of a generous temper, and of a good fortune to ſupport it: but if this line be forked at the end, it threatens the perſon ſhall ſuffer by jealouſies and doubts, and loſs of riches gotten by deceit. If three points, ſuch as theſe ∴ are found in it, they denote the perſon prudent and liberal, a lover of learning, and of a good temper. If it ſpreads towards the fore and middle finger, and ends blunt, it denotes preferment. Let us now ſee what is ſignified by the middle line. This line has in it oftentimes (for there is ſcarce a hand in which it varies not) divers very ſignificant characters. Many ſmall lines between this and the table line threatens the party with ſickneſs, but alſo gives him hopes of recovery. A half croſs branching into this line declares the perſon ſhall have honour, riches, and good ſucceſs in all his undertakings. A half moon denotes cold and watery diſtempers; but a ſun or ſtar upon this line promiſes proſperity and riches: This line, double in a woman, ſhews ſhe will have ſeveral huſbands, but no children.

The Line of Venus, if it happens to be cut or divided near the fore finger, threatens ruin to the party, and that it ſhall befall him by means of laſcivious women and bad company. Two croſſes upon this line, one being on the fore-finger and the other bending towards the little finger, ſhews the party to be weak, and inclined to modeſty and virtue; indeed

deed it generally denotes modeſty in women; and therefore thoſe who deſire ſuch wives uſually chuſe them by this ſtandard.

The liver line, if it be ſtrait, and croſſed by other lines, ſhews the perſon to be of a ſound judgment, and a piercing underſtanding: but if it be winding, crooked, and bending outward, it ſhews deceit and flattery, and that the party is not to be truſted. If it makes a triangle, or quadrangle, it ſhews the perſon to be of a noble deſcent, and ambitious of honour and promotion. If it happens that this line and the middle line begin near each other, it denotes a perſon to be weak in his judgment, if a man; but if a woman, danger by hard labour.

The Plain of Mars being in the hollow of the hand, moſt of the lines paſs through it, which renders it very ſignificant. This plain being hollow, and the lines being crooked and diſtorted, threatens the party to fall by his enemies. When the lines beginning at the wriſt are long within the plain, reaching to the brawn of the hand, that ſhews the perſon to be one given to quarrelling, often in broil, and of a hot and fiery ſpirit, by which he ſhall ſuffer much damage. If deep and large croſſes be in the middle of the plain, it ſhews the party ſhall obtain honour by martial exploits: but if it be a woman, that ſhe ſhall have ſeveral huſbands, and eaſy labour with her children.

The line of death is fatal, when croſſes or broken lines appear in it; for they threaten the perſon with ſickneſs and a ſhort life. A clouded moon appearing therein threatens a child bed woman with death. A bloody ſpot in the line denotes a violent death. A ſtar like a comet, threatens ruin by war, and death by peſtilence. But if a bright ſun appears therein it promiſes long life and proſperity.

As for the lines in the wriſt being fair, they denote good fortune, but if croſſed and broken, the contrary.

Thus he that nature richly underſtands,
May from each line imprinted in his hands
His future fate and fortune come to know,
And in what path it is his feet ſhall go;
His ſecret inclinations he may ſee,
And to what vice he ſhall addicted be.

To

To th' end that when he looks into his hand
He may upon his guard the better ſtand,
And turn his wandring ſteps another way
When'er he finds he does from virtue ſtray.

CHAP. V.

Judgments according to Phyſiognomy, drawn from the ſeveral parts of the body, from the hands to the feet.

A Large and full breaſt ſhews a man valiant and courageous, but withal proud, and hard to deal with, quickly angry, and very apprehenſive of an injury. He whoſe breaſt is narrow, and which riſeth a little in the middle of it, is, by the beſt rules of phyſiognomy, of a clear ſpirit, of a great underſtanding, good in counſel, very faithful, clean both in mind and body, yet as an ally to this, he is ſoon angry, and inclined long to keep it. He whoſe breaſt is ſomething hairy is very luxurious, and ſerviceable to another. He who hath no hairs upon his breaſt is a man weak by nature, of a ſlender capacity, and very timorous, but of a laudable life and converſation, inclined to peace, and much retired to himſelf.

The back of the chin bone, if the fleſh be any thing hairy and lean, and higher than any other part that is behind, ſignifies a man ſhameleſs, beaſtly, and withal malicious. He whoſe back is large, big, and fat, is thereby denoted to be a ſtrong and ſtout man, but of a heavy diſpoſition, vain, ſlow, and full of deceit.

He or ſhe whoſe belly is ſoft over all the body, is weak, luſtful, and fearful upon little or no occaſion, of a good underſtanding, and an excellent invention, but little eaters, faithful, but of various fortune, and meets with more adverſity than proſperity. He whoſe fleſh is rough and hard, is a man of ſtrong conſtitution, and very bold, but vain, proud, and of a cruel temper. A perſon whoſe ſkin is ſmooth, fat, and white, is a perſon curious, vain-glorious, timorous, ſhame-faced, malicious, falſe, and too wiſe to believe all he hears.

A thigh full of ſtrong briſtly hair, and the hair inclined to curl, ſignifies one luſty, licentious, and fit for copulation: thighs

thighs with but little hair, and thoſe ſoft and ſlender, ſhews the perſon to be reaſonably chaſte, and one that has no great deſire to venereal pleaſures, and who will have but few children.

The legs of both men and women have a fleſhy ſubſtance behind, which are called calves, which nature hath given them (as in our book of living creatures we have obſerved) in lieu of thoſe long tails which moſt other creatures have pendant behind. Now a great calf, and he whoſe legs are of a great bone, and hairy withal, denotes the perſon to be ſtrong, bold, ſecure, dull in underſtanding, and ſlow in buſineſs, inclined to procreation, and for the moſt part fortunate in his undertakings. Little legs, and but little hair on them, ſhews the perſon to be weak, fearful, of a quick underſtanding, and neither luxurious at bed nor board. He whoſe legs do much abound with hairs, ſhews he has great ſtore in another place, and that he is luſtful and luxurious, ſtrong, but unable in his reſolution, and abounding with ill humours.

The feet of either man or woman, if broad and thick with fleſh, and long in figure, eſpecially if the ſkin feels hard, they are by nature of a ſtrong conſtitution, and a groſs nutriment, but of a weak intellect, which renders their underſtandings vain. But feet that are thin and lean, and of a ſoft ſkin, ſhews the perſon to be but weak of body, but of a ſtrong underſtanding, and of an excellent wit.

The ſoles of the feet do adminiſter plain and evident ſigns whereby the diſpoſition and conſtitution of men and women may be known, as do the palms of their hands, as being full of lines, by which lines all the fortunes or the misfortunes of men or women may be known, and their manners and inclinations made plainly to appear. But this in general we may take notice, as that many long lines and ſtrokes do preſage great affliction, and a very troubleſome life, attended with much grief and toil, care, poverty and miſery; but ſhort lines, if they are thick, and full of croſs lines, are yet worſe in every degree. Thoſe, the ſkin of whoſe ſoles are very thick and groſs, are for the moſt part able, ſtrong, and venturous. Whereas on the contrary, thoſe the ſkin of whoſe ſoles of their feet is thin are generally weak and timorous.

I ſhall now, before I conclude, (having given an account of

of what judgments may be made by obſerving the ſeveral parts of the body, from the crown of the head to the ſole of the feet,) give an account of what judgments may be drawn by the rules of phyſiognomy from things extraneous which are found upon many, and which indeed to them are parts of the body, but are ſo far from being neceſſary parts that they are the deformity and burden of it, and ſpeak of the habit of the body as they diſtinguiſh perſons.

I. Of crooked and deformed Perſons.

A Crooked breaſt or ſhoulder, or the exuberance of fleſh in the body either of man or woman, ſignifies the perſon to be extremely parſimonious and ingenious, and of great underſtanding, but very covetous, and ſcraping after the things of the world, attended alſo with a very bad memory, being alſo very deceitful and malicious: they are ſeldom in a medium, but either virtuous or extremely vicious. But if the perſon deformed hath an excreſcence on his breaſt inſtead of the back, he is for the moſt part of a double heart, and very miſchievous.

II. Of the divers manners of going, and particular poſture both of Men and Women.

HE or ſhe that goes ſlowly, making great ſteps as they go, are generally perſons of bad memory, and dull of apprehenſion, given to loitering, and not apt to believe what is told them. He who goes apace, and makes ſhort ſteps, is moſt ſucceſsful in all his undertakings, ſwift in his imaginations, and humble in the diſpoſition of his affairs. He who makes wide and uneven ſteps, and ſide long withal, is one of a greedy ſordid nature, ſubtile, malicious, and wills to do evil.

III. Of the Gait or Motion in Men and Women.

EVERY man hath a certain gait or motion, and ſo in like manner hath every woman: For a man to be ſhaking his head, or uſing any light motion with his hands or feet, whether he ſtands, or ſits, or ſpeaks, is always accompanied with

with an extravagant motion, unneceſſary, ſuperfluous, and unhandſome. Such a man by the rules of phyſiognomy, is vain, unwiſe, unchaſte, a detractor, unſtable, and unfaithful. He or ſhe whoſe motion is not much when diſcourſing with any one, is for the moſt part wiſe and well bred, and fit for any employment, ingenious and apprehenſive, frugal, faithful, and induſtrious in buſineſs. He whoſe poſture is forwards and backwards, or, as it were whiſking up and down, mimical, is thereby denoted to be a vain ſilly perſon, of a heavy and dull wit, and very malicious. He whoſe motion is lame and limping, or any otherwiſe imperfect, or that counterfeits an imperfection, is denoted to be envious, malicious, falſe and detracting.

IV. Judgments drawn from the Stature of a man.

PHyſiognomy draws ſeveral judgments alſo from the ſtature of a man, which take as followeth: If a man be upright and ſtraight, inclined rather to cleanneſs than fat, it ſhews him to be bold, cruel, proud, clamorous, hard to pleaſe, and harder to be reconciled when diſpleaſed, very frugal, deceitful, and in many things malicious. To be of a tall ſtature, and corpulent with it, denotes him to be not only handſome but valiant alſo, but of no extraordinary underſtanding, and which is worſt of all, ungrateful and trepanning. He who is extremely tall, and very lean and thin, is a projecting man, that deſigns no good to himſelf, and ſuſpects every one to be as bad as himſelf, importunate to obtain what he deſires, and extremely wedded to his own humours. He who is thick and ſhort, is vain, envious, ſuſpicious, and very ſhallow of apprehenſion, eaſy of belief, but very long before he will forget any injury. He who is lean and ſhort, but upright withal, is, by the rules of phyſiognomy, wiſe and ingenious, bold and confident, and of a good underſtanding, but of a deceitful heart. He who ſtoops as he goes, not ſo much by age as cuſtom, is very laborious, a retainer of ſecrets, but very incredulous, and not eaſy to believe every vain report he hears. He that goes with his belly ſtretching forth is ſociable, merry, and eaſy to be perſuaded.

V. General

V. General Obſervations worthy of Note.

WHEN you find a red man to be faithful, a tall man to be wiſe, a fat man to be ſwift of foot, a lean man to be a fool, a handſome man not to be proud, a poor man not to be envious, a whitely man not to be wiſe, one that talks through the noſe to ſpeak without ſnuffling, a knave to be no liar, an upright man not to be bold and hearty to his own loſs, one that drawls when he ſpeaks not to be crafty and circumventing; a man of a hot conſtitution, and full of hair on his breaſt and body, not to be luſtful; one that winks on another with his eyes, not to be falſe and deceitful; one that knows how to ſhuffle his cards, to be ignorant how to deal them; a rich man to be prodigal, a ſailor and hangman to be pitiful, a poor man to build churches, a higler not to be a liar, and a praiſer of his ware; a buyer not to find fault with and undervalue that which he would willingly buy; a quack doctor to have a good conſcience both to God and man; a bailiff or catchpole not to be a mercileſs villain; an hoſteſs not to over-reckon you, and an uſurer to be charitable; then ſay you have found a prodigy, or men acting contrary to the courſe of their nature.

The End of the Maſter Piece.

THE

FAMILY PHYSICIAN,

Being choice and approved Remedies for the ſeveral Diſtempers incident to the Human Body.

A Powder for the Epilepſy or falling Sickneſs.

TAKE of Opoponax, crude Antimony, Dragon's blood, Caſtor Peony ſeeds, of each an equal quantity, make them into a ſubtile powder, the doſe half a dram in black cherry water. Before you take it, the ſtomach muſt be cleanſed with ſome proper vomit, as that of Mynſicht's emetic Tartar, from four grains to ſix. For children, Salt of Vitriol from a ſcruple to half a dram.

A Vomit for a Swimming in the Head.

Take Cream of Tartar half a ſcruple, caſtor two grains, mix all together for a vomit, to be taken at four o'clock in the afternoon. At night, going to bed, it will be very proper to take a doſe of the Apoplectic powder.

For Spitting of Blood.

Take Conſerve of Comfrey, and of Hips, of each an ounce and a half; Conſerve of red Roſes 3 ounces, Dragon's Blood a dram, Species of Hyacinth 2 ſcruples, red coral a dram: mix with the Syrup of red Poppies, and make a ſoft electuary; take the quantity of a walnut night and morning.

A Powder againſt Vomiting.

Take Crabs Eyes, red Coral, Ivory of each 2 drams; burnt Hartſhorn 1 dram, Cinnamon and red Saunders, of each half a dram: make all for a ſubtile powder, and take half a dram.

For the Bloody Flux.

Take a dram of Powder of Rhubarb in a ſufficient quantity of Conſerve of red Roſes early in the morning, and at night take of terified or roaſted Rhubarb half a dram, Diaſcordium a dram and a half, Liquid Laudanum cydoniated a ſcruple: mix them, and make a bolus.

For

For an inflammation of the Lungs.

Take curious Water ten ounces, Water of red Poppies three ounces, Syrup of Poppies one ounce, Pearl prepared a dram; make a Julep, and take ſix ſpoonfuls every four hours.

For weakneſs in Women.

After a gentle purge or two take the following decoction, viz a quarter of a pound of Lignum vitæ; ſaſſafras two ounces; boil the whole in ſix quarts of water to a gallon; ſtrain and keep it for uſe: Take half a pint firſt in the morning, faſting for two hours after: another at four o'clock in the afternoon; and a third at going to bed.

An Ointment for the Itch.

Take Sulphur Vive, in a powder, half an ounce. Oil of Tartar per Deliquium a ſufficient quantity, ointment of Roſes four ounces: make a Liniment, to which add a ſcruple of Oil of Rhodium to arotamize it, and rub the parts affected with it.

For Worms in Children.

Take wormſeed half a dram, Flower of Sulphur a dram, Sal prunella half a dram, mix and make a powder; give as much as will lie upon a ſilver threepence night and morning, in Treacle or Honey. For grown perſons add a ſmall quantity of Aloe Roſatum, and ſo make them up into pills; three or four of which may be taken every morning.

A Diet Drink for the Vertigo, or ſwimming of the head.

Take ſmall Ale, and boil it in the Leaves of Miſletoe for the Apple-tree, Roots of Male Peony, and Peony Flowers: then put it into a veſſel of four gallons, in which hang a bag of half a pound of peacock's dung, and two drams of Cloves bruiſed; drink it as common drink.

For a Looſeneſs.

Take of Venice Treacle and Diaſcordium, of each half a dram, in warm ale, water gruel, or what you like beſt, at night going to bed.

For Fevers in Children.

Take of crabs Eyes one dram, Cream of Tartar half a dram, white Sugar Candy finely powdered, the weight of both: mix all well together, and give as much as will lie upon a ſilver threepence, in a ſpoonful of Barley-water or Sack Whey.

For an Headach of a long ſtanding.

Take the Juice of Powder of diſtilled water of Hog-lice, and continue the uſe of it.

For the Gripes in children.

Give a drop or two of the Oil of Anniſeed in a ſpoonful of Panada, Milk, or any thing you ſhall think proper.

A diſtilled Water for a confirmed Phthiſic.

Take Leaves of Ground Ivy five handfuls, ſix Nutmegs ſliced. Two pound of the Crumb of white Bread. Three pound of Snails half boiled and ſliced into milk, and take of it three or four times a-day, ſweetened with Sugar of Pearl or Roſes.

A quieting Night Draught when the Cough is violent.

Take of water of green Wheat ſix ounces, Syrup of diaſcordium three ounces: mix them, and take two or three ſpoonfuls going to bed every night or every other night.

For Vomiting or Looſeneſs.

Take of Venice Treacle one ounce, powder of Tormentile Roots, Contraverva, Pearl and prepared Coral, of each a ſufficient quantity, of the Syrup of dried Roſes, make an electuary; take the quantity of a walnut every fourth or fifth hour; drink after it a draught of Ale or Beer, with a Cruſt of bread, mace, or cinnamon boiled in it.

A diſtilled Water for the Jaundice.

Take a pound of the roots of Engliſh rhubarb ſliced, the rhines of four oranges ſliced, filings of ſteel a pound, freſh ſtraw berries ſix pounds, three quarts of white wine; let them ſtand in infuſion for ſome time, and diſtil all according to art. Take of it four ounces twice a day, with twenty drops of the ſpirit of ſaffron.

For the Reumatiſm.

Take volatile ſalt of hartſhorn, volatile ſalt of amber, of each two drams, crabs eyes one ounce, cochineal a ſcruple; mix and make a powder. Take half a dram of this three times a-day, or indeed every four hours, keeping your bed and ſweating upon it.

For a violent Toothach.

If the tooth be hollow, nothing cures but drawing; but if occaſioned through a defluxion of humours upon the part, firſt take a gentle purge, and at night when you go to bed take a grain or two of London laudanum, which will thicken the humours, ſtop the defluxions, and conſequently remove the pain.

For St Anthony's Fire.

Bleeding premiſed take frog-ſpawn water, and plantain water,

water, of each half a pint, ſugar of lead two drams; mix and ſhake the bottle till the ſalt is diſſolved. Dip a linen cloth in this water, and bathe the part affected with: it cools wonderfully.

For the black Jaundice.

Take flowers of Sal Armoniac a dram, Salt of amber a ſcruple; ſpecies diacurcuma a dram, extract of gentian a dram, Saffron a ſcruple, Gum armoniac diſſolved in vinegar of ſquills what ſuffices, make a maſs of ſmall pills; take it three or four mornings and evenings.

For an Ague.

Take the common bitter drink without the purgatives, two quarts, ſalt of wormwood two ounces; the beſt Engliſh ſaffron a dram. After you have taken a vomit, or convenient purge, take half a pint of this three times a day, viz. in the morning faſting, three o'clock in the afternoon, and laſt at night.

For the Cholic.

Take anniſeed, ſweet fennel ſeed, coriander, caraway ſeeds, of each two drams, cummin ſeed a dram, raſed ginger a ſmall quantity, bruiſe all in a mortar, and put them into a quart of Nantz brandy: let them infuſe three days, ſhaking the bottle three or four times a day, then ſtrain and keep it for uſe; take two or three ſpoonfuls in the fit.

For the palpitation or beating of the heart.

Take powder of crabs eyes, burnt hartſhorn and red coral of each a dram, Engliſh ſaffron a ſcruple mix, and make a powder. Take a ſcruple of it night and morning in a ſpoonful of barley water, drinking a draught after it.

For a pain in the ſtomach proceeding from wind.

Take venice treacle three drams, dittany, ſeeds of ambos daucus, of each ſix grains, galangal cloves, of each a ſcruple, wood of aloes, coral, of each a ſcruple, conſerve of roſes an ounce, conſerve of mint half an ounce, with a ſufficient quantity of ſyrup of mint make an electuary. If need require, you may add two grains of opium. Doſe, the quantity of a nutmeg in the morning faſting.

Lozenges reſtorative in a Conſumption.

Take pine nuts prepared, two drams and a half, green fuſtick two drams. Species diambræ two ſcruples, cinnamon half a dram, galangal a ſcruple, cloves half a dram, nutmegs

two ſcruples, white ginger half a dram, Xiloaloes half a ſcruple, with four ounces and a half of ſugar diſſolved in roſe water, and the ſpices, make a confection in lozenges.

Againſt Aches and Pains in the Joints.

Take powder of chamedrois, chamopetys, and gentian, of each three drams, dried leaves of rue four ounces; make all into a fine powder. After due purging give a dram of this night and morning in a ſpoonful of white wine.

For Spots and Pimples in the Skin.

Take black ſoap two ounces, ſulphur vive in powder one ounce: tie them in a rag, and hang them in a pint of vinegar for the ſpace of nine days: then rub and waſh the part gently twice a day, that is night and morning

Purging Pills for the Scurvy.

Take roſin of julep twenty grains, aromatic pills with gum two grains, vitriolated tartar twenty-ſix grains, oil of juniper ten grains, with a ſufficient quantity of gum armoniac diſſolved in vinegar of ſquills. Take four at a time early in the morning, faſting two hours after. You may take them once a week.

For ſtinking Gums without Rottenneſs.

Take powder of the beſt myrrh one ounce, claret wine a pint: after two or three days infuſion waſh your gums and mouth with it.

For the Rheumatiſm proceeding from the Scurvy.

Take ſtone-horſe dung a pound, white wine 3 or 4 qts diſtil according to art; take 5 or 6 ounces twice or thrice a day. Some take the infuſion only, but this exceeds it.

For a convulſion Cough in Children.

After a gentle vomit and purge, apply a bliſter to the nape of the neck; but if the diſtemper be too obſtinate, then cut an iſſue in the neck or arm, or in the arm pits: keep them cloſe to a diet drink of chida ſarſa, ſhavings of ivory, ſaunders, and ſome diuretic ingredients. But if a ſpecific, you may give cupmoſs every day in powder in boiled milk. You may add the decoction of hyſſop, with a little caſtor and ſaffron.

For an inward Bleeding.

Take leaves of plantain and ſtinging nettles, of each three handfuls; bruiſe them very well, and pour on them ſix ounces of plantain water: afterwards make a ſtrong expreſſion, and drink the whole off.

For

For a Bleeding at the Noſe.

Take a dried toad, ſew it up in a ſilk bag, and hang it at the pit of the ſtomach for a conſiderable time. This has performed the cure when other medicines have proved ineffectual.

For the ſame.

Take calcanthum rubefactum, or the caput mortuum of vitriol half an ounce; boil it in a quart of quick lime water to a pint; when cold and ſettled ſtrain it. Dip a tent in it, and thruſt it up to the noſtrils; or you may ſnuff ſome of it up the noſe.

Powder againſt Poiſon and Peſtilence.

Take zedoary, euphorbium, corallina, tormenti gentian, common dittany, ſcald earth, armenian bole, red and white coral, ſpikenard, maſtich, clove, jellyflowers, leſſer centuary, red ſaunder, bone of a ſtag's heart, camphire, of each equal parts. Make all into an impalpable powder: give one dram with ſorrel water, or with wine and ſorrel boiled together.

The End of the Family Phyſician.

THE

THE EXPERIENCED
MIDWIFE.

PART I.

A GUIDE for Child-bearing Women.

The INTRODUCTION.

I HAVE given this book the title of The Complete and Experienced MIDWIFE, both becauſe it is chiefly deſigned for thoſe that profeſs midwifery, and contains whatever is neceſſary for them to know in the practice thereof, and alſo becauſe it is the reſult of many years experience, and that in the moſt difficult caſes, and is therefore the more to be depended upon. A midwife is the moſt neceſſary and honourable office, being indeed a helper of nature; which therefore makes it neceſſary for her to be well acquainted with all the operations of nature in the work of generation, and inſtruments with which ſhe works; for ſhe that knows not the operations of nature, nor with what tools ſhe works, ſhe muſt needs be at a loſs how to aſſiſt therein. And ſeeing the inſtruments of operation both in men and women are thoſe things by which mankind is produced, it is very neceſſary that all midwives ſhould be well acquainted with them, that they may the better underſtand their buſineſs, and aſſiſt nature as there ſhall be occaſion. The firſt thing then neceſſary, as introductory to this treatiſe, is an ANATOMICAL DESCRIPTION of the ſeveral parts of generation both in men and women; and having deſigned throughout to comprehend much in a little room, I ſhall avoid all unneceſſary and impertinent matters with which books of this nature are for the moſt part too much clogged, and which are more curious than needful. And though I ſhall be neceſſitated to ſpeak plainly, that ſo I may be underſtood, yet I ſhall do it with that modeſty that none ſhall have need to bluſh, unleſs it be from ſomething in themſelves, rather than from what they

they ſhall find here; having the motto of the royal garter for my defence, which is, "Honoi ſoit qui mal y penſ
Evil to him that evil thinks.

CHAP. I.

An Anatomical Deſcription of the Inſtruments of Generation both in Man and Woman.

SECT. I. *Of the Parts of Generation in Man.*

AS the generation of mankind is produced by the coition of both ſexes, it neceſſarily follows that the inſtruments of generation are of two ſorts, viz. male and female; the operations of which are by action and paſſion; and herein the agent is the ſeed, and the patient blood; whence we may eaſily collect, that the body of man being generated by action and paſſion, he muſt needs be ſubject thereunto during his life. Now, ſince the inſtruments of generation are male and female, it will be neceſſary to treat of them both diſtinctly, that the honeſt and diſcreet midwife may be well acquainted with their ſeveral parts, and their various operations, as they contribute to the work of generation. And, in doing this, I ſhall give the honour of precedence to my own ſex, and ſpeak firſt of the parts of generation in man, which will be comprehended under ſix particulars, viz. The preparing veſſels, the corpus varicoſum, the teſticles, or ſtones, the vaſa deferentia, the ſeminal veſſels, and the yard. Of each of which in their order.

1. The firſt are the vaſa preparentia, or preparing veſſels, which are in number four, two veins, and as many arteries; and they are called preparing veſſels, from their office, which is to prepare that matter or ſubſtance which the ſtones turn into ſeed to fit it for the work. Whence you may note, that the liver is the original of blood, and diſtributes it through the body by the veins and not the heart, as ſome have taught. As to the original of theſe veins, the right vein proceedeth from the vena cava, or great vein, which receives the blood from the liver, and diſtributes it by its branches to all the body; the left is from the emulgent vein, which is one of the two main branches of the hollow vein paſſing to the reins. As to the arteries, they both ariſe

riſe from the great artery, which the Greeks call that which is indeed the great trunk and original of all the arteries. But I will not trouble you with Greek derivations of words, affecting more to teach you the knowledge of things than words.

2. The next thing to be ſpoken of is the corpus varicoſum, and this is an interweaving of the veins and arteries which carry the vital and natural blood to the ſtones to make ſeed of. Theſe, though at their firſt deſcenſion they keep at a ſmall diſtance the one from the other, yet before they enter the ſtones they make an admirable intermixture of twiſting the one from the other, ſo that ſometimes the veins go into the arteries, and ſometimes the arteries into the veins; the ſubſtance of which is very hard and long, not much unlike a pyramid in form, without any ſenſible hollowneſs: The uſe is to make one body of the blood and vital ſpirits, which they both mix and change the colour of from red to white, that ſo the ſtones may both have a fit matter to work upon, and do their work more eaſily; for which reaſon, the interweaving reacheth down to the very ſtones, and pierceth in their ſubſtance.

3. The ſtones are the third thing to be ſpoken of, called alſo teſticles; in Latin, Teſte; that is, a witneſs, becauſe they witneſs one to be a man. As to theſe I need not tell you their number, nor where nature has placed them, for that is obvious to the eye. Their ſubſtance is ſoft, white, and ſpungy, full of ſmall veins and arteries, which is the reaſon they ſwell to ſuch a bigneſs upon the flowing down of the humour in them. Their form is oval; but moſt authors are of opinion that their bigneſs is not equal, but that the right is the biggeſt, the hotteſt, and breeds the beſt and ſtrongeſt ſeed. Each of theſe ſtones hath a muſcle, called cremaſter; which ſignifies to hold up, becauſe they pull up the ſtones in the act of coition, that ſo the veſſels being ſlackened may the better void the ſeed. Theſe muſcles are weakened both by age and ſickneſs; and then the ſtones hang down lower than in youth and health. Theſe ſtones are of great uſe, for they convert the blood and vital ſpirits into ſeed for the procreation of man: but this muſt not be underſtood as if they converted all the blood that comes into them into ſeed, for they keep ſome for their own nouriſhment. But beſides this, they add ſtrength and courage to the body; which is evident

evident from this, that eunuchs are neither ſo hot, ſtrong, nor valiant, as other men, nor is an ox ſo hot or valiant as a bull.

4. The next in order are the vaſa deferentia, which are the veſſels that carry the ſeed from the ſtones to the ſeminal veſſels, which is kept there till its expuliſion. Theſe are in number two, in colour white, and in ſubſtance nervous or ſinewy; and fromc ertain hollowneſs which they have in them are alſo called ſpermatic pores. They riſe not far from the preparing veſſels; and when they come into the cavity of the belly, they turn back again, and paſs into the backſide of the bladder, between it and the right gut; and when they come near the neck of the bladder they are joined to the ſeminal galls, which ſomewhat reſemble the cells of an honey-comb; which cells contain an oily ſubſtance, for they draw the fatty ſubſtance from the ſeed, which they empty into the urinal paſſage, which is done for the moſt part in the act of copulation, that ſo the thin internal ſkin of the yard ſuffers not through the acrimony or ſharpneſs of the ſeed. And when the vaſa deferentia has paſſed, as before declared, they fall into the glandula proſtrata, which are the veſſels by nature ordained to keep the ſeed, and which are next to be ſpoken of.

5. The ſeminal veſſels, called glandulum ſeminale, are certain kernels placed between the neck of the bladder and the right gut, compoſing about the vaſa deferentia, the urethra or common paſſage for ſeed and urine, paſſing through the midſt of it, and may properly enough be called the conduit of the yard. At the mouth of the urethra, where it meets with the vaſa deferentia, there is a thick ſkin, whoſe office is to hinder the ſeminal veſſels, which are of a ſpungy nature, from ſhedding their ſeed againſt their will: this ſkin is very full of pores, and through the heat of the act of copulation the pores open, and ſo give paſſage to the ſeed, which being of a very ſubtile ſpirit, and eſpecially being moved, will paſs through this caruncle or ſkin as quickſilver through a leather; and yet the pores of this ſkin are not diſcernible unleſs in the anatomy of a man who had ſome violent running in the reins when he died, and then they are conſpicuous, thoſe veſſels being the proper ſeat of that diſeaſe.

6. The laſt of the parts of generation in man to be ſpoke

of

of is the yard, which has a principal ſhare in the work of generation, and is called Penis, from its hanging without the belly; and it conſiſts of ſkin, tendons, veins, arteries, ſinews, and great ligaments, and is long and round, being ordained by nature both for the paſſage of the urine, and for the conveying of ſeed into the matrix. It hath ſome parts common with it to the reſt of the body, as the ſkin, or the Membrana Carnoſa; and ſome parts it has peculiar to itſelf, as the two nervous bodies, the Septum, the Urethra, the Glans, the four muſcles, and the veſſels. The ſkin, which the Latins called Cutus, is full of pores, through which the ſweet and fuligmous or ſooty black vapours of the third concoction (which concocts the blood into fleſh) paſs out: Theſe pores are very many and thick, but hardly viſible to the eye; and when the yard ſtands not, it is ſluggy; but when it ſtands, it is ſtiff: The ſkin is very ſenſible, becauſe the nerves concur to make up its being; for the brain gives ſenſe to the body by the nerves. As to the Carnus Membrana, or fleſhy ſkin, it is ſo called, not becauſe its body is fleſhy, but becauſe it lies between the fleſh, and paſſeth in other parts of the body underneath the fat, and ſticks cloſe to the muſcles; but in the yard there is no fat at all, only a few ſuperficial veins and arteries paſs between the former ſkin and this, which when the yard ſtands are viſible to the eye: Theſe are the parts common both to the yard and to the reſt of the body. I will now ſpeak of thoſe parts of the yard which are peculiar to itſelf, and to no other parts of the body: And thoſe are likewiſe ſix, as has been already ſaid, of which it will alſo be neceſſary to ſpeak particularly. And,

1. Of the Nervous Bodies: Thoſe are two, though joined together, and are hard, long, and ſinewy, they are ſpungy within, and full of black Blood: the ſpungy ſubſtance of the inward part of it ſeems to be woven together like a net, conſiſting of innumerable twigs of veins and arteries. The black blood contained therein is very full of ſpirits, and the delights or deſire of Venus add heat to theſe, which cauſeth the yard to ſtand; and that is the reaſon that both venereal ſights and tales will do it. Nor need it be ſtrange to any, that Venus, being a planet cold and moiſt, ſhould add heat to thoſe parts, ſince by night, as the Pſalmiſt teſtifies, Pſal. cxxi. 9. Now this hollow, ſpungy intermixture or weaving

ving was ſo ordered by nature, on purpoſe to contain the ſpirit of venereal heat, that the yard may not fall before it has done its work. Theſe two ſide-ligaments of the yard, where they are thick and round, ariſe from the lower part of the ſhare-bone, and at the beginning are ſeparated the one from the other, reſembling a pair of horns, or the letter Y, where the Urethra, or common paſſage of urine and ſeed, paſſeth between them.

2. Thoſe nervous bodies of which I have ſpoken, ſo ſoon as they come to the joining of the ſhare-bone, are joined by the Septum Lucium, which is the ſecond internal part to be deſcribed, which in ſubſtance is white and nervous, or ſinewy, and its uſe is to uphold the two ſide-ligaments and the Urethra.

3 The third thing in the internal parts of the yard is the Urethra, which is the paſſage or channel by which both the ſeed and urine is conveyed out through the yard. The ſubſtance of it is ſinewy, thick, ſoft, and looſe, as the ſide-ligaments are; it begins at the neck of the bladder, and, being joined to it, paſſeth to the glans. It has in the beginning of it three holes, of which the largeſt of them is in the midſt, which receives the urine into it; the other two are ſmaller, by which it receives the ſeed from each ſeminal veſſel.

4. The yard has four muſcles, on each ſide two: Theſe muſcles are inſtruments of voluntary motion, without which no part of the body can move itſelf. It conſiſts of fibrous fleſh to make its body, of nerves for its ſenſe, of veins for its nouriſhment, of arteries for its vital heat, of a membrane or ſkin to knit it together, and to diſtinguiſh one muſcle from another, and all them from the fleſh: Of theſe muſcles, as I ſaid before, the yard has two on each ſide, and the uſe of them is to erect the yard and make it ſtand, and therefore are they alſo called Erectores. But here you muſt note, that of the two on each ſide, the one is ſhorter and thicker than the other: and theſe are they that do erect the yard, and ſo are called Erectores: but the two other being longer and ſmaller, their office is to dilate the lower part of the Urethra, both for making water and emitting the ſeed; upon which account they are called Accelerators.

5. That which is called the Glans, is the extreme part of the yard, which is very ſoft, and of a moſt exquiſite feeling,

ing, by reaſon of the thinneſs of the ſkin wherewith it is covered: This is covered with the Præputium, or fore ſkin, which in ſome men covers the top of the yard quite cloſe, but in others it doth not; which ſkin moving up and down in the act of copulation, brings pleaſure both to man and woman. This outer ſkin is that which the Jews were commanded to cut off on the eighth day. This Præputium, or fore-ſkin, is tied to the Glans by a ligament or bridle, which is called Frænum.

6. The laſt internal part of the yard are the veſſels thereof, veins, nerves, and arteries. Of theſe ſome paſs by the ſkin, and are viſible to the eye when the yard ſtands; others paſs by the inward parts of the yard: the arteries are wonderfully diſperſed through the body of the yard, much exceeding the diſperſion of the veins; for the right artery is diſperſed to the left ſide, and the left to the right ſide. It hath two nerves, the leſſer whereof is beſtowed upon the ſkin, the greater upon the muſcles and body of the yard. But this much ſhall ſuffice to be ſaid in deſcribing the parts of generation in men: And ſhall therefore, in the next place, proceed to deſcribe thoſe of women, that ſo the honeſt and induſtrious midwife may know how to help them in their extremities.

SECT. II. *Deſcribing the Parts of Generation in Women.*

WHATEVER ignorant perſons may imagine, or ſome good women think, they are unwilling thoſe private parts, which nature has given them, ſhould be expoſed, yet it is in this caſe abſolutely neceſſary; for I do poſitively affirm, that it is impoſſible truly to apprehend what a midwife ought to do, if theſe parts are not perfectly underſtood by them; nor do I know any reaſon they have to be aſhamed to ſee or hear a particular deſcription of what God and nature has given them, ſince it is not the having theſe parts, but the unlawful uſe of them, that cauſes ſhame.

To proceed then in this deſcription more regularly, I ſhall ſpeak in order of theſe following principal parts: 1ſt, Of the Privy Paſſage; 2dly, Of the Womb; 3dly, Of the Teſticles, or Stones; 4thly, Of the Spermatic Veſſels.

1ſt, Of the Privy Paſſage. Under this head I ſhall conſider the ſix following parts:

1. The

1. The Lips, which are viſible to the eye, and are deſigned by nature as a cover to the Fiſſura Magna, or great orifice: Theſe are framed of the body, and have pretty ſtore of ſpungy fat; and their uſe is to keep the internal parts from cold and duſt. Theſe are the only things that are obvious to the ſight; the reſt are concealed, and cannot be ſeen, unleſs theſe two lips are ſtretched aſunder, and the entry of the privities opened.

2. When the lips are ſevered, the next thing that appears is the Nymphæ, or wings; they are formed of ſoft and ſpungy fleſh, and are in form and colour like the comb of a cock.

3. In the uppermoſt part, juſt above the urinary paſſage, may be obſerved the Clitoris, which is a ſinewy and hard body, full of ſpungy and black matter within, like the ſide ligament of the yard, repreſenting in form the yard of a man, and ſuffers erection and falling as that doth; and it grows hard, and becomes erected as a man's yard, in proportion to the deſire a woman hath in copulation; and this alſo is that which gives a woman delight in copulation; for without this a woman hath neither a deſire to copulation, and delight in it, nor can conceive by it. And I have heard that ſome women have had their Clitoris ſo long that they have abuſed other women therewith: Nay, ſome have gone ſo far as to ſay, that thoſe perſons that have been reported to be Hermaphrodites, as having the genitals both of men and women, are only ſuch women to whom the Clitoris hangs out externally, reſembling the form of a yard. But though I will not be poſitive in this, yet it is certain, that the larger the Clitoris is in any woman the more luſtful ſhe is.

4. Under the Clitoris, and above the neck, appears the Orifice, or urinary paſſage, which is much larger in women than men, and cauſes their water to come from them in a great ſtream. On both ſides the urinary paſſage may be ſeen two ſmall membranous appendices, a little broader above than below, iſſuing forth of the inward parts of the great lips, immediately under the Clitoris; the uſe whereof is to cover the orifice of the urine, and defend the bladder from the cold air: ſo that when a woman piſſeth, ſhe contracts herſelf ſo, that ſhe conducts out the urine without ſuffering it to ſpread along the privities, and often without ſo much as wetting the lips; and therefore theſe ſmall mem-

branous wings are called the Nymphæ, becauſe they govern the woman's water. Some women have them ſo great and long, that they have been neceſſitated to cut off ſo much as has exceeded and grew without the lips.

5. Near this are four Caruncles, or fleſhy knobs, commonly called Caruncles Myrtiformes; theſe are placed on each ſide two, and a ſmall one above, juſt under the urinary paſſage, and in virgins are reddiſh, plump, and round, but hang flagging when virginity is loſt. In virgins they are joined together by a thin and ſinewy ſkin or membrane, which is called the Hymen, and keeps them in ſubjection, and makes them reſemble a kind of roſe-bud half blown. This diſpoſition of the Caruncles is the only certain mark of virginity, it being in vain to ſearch for it elſewhere, or hope to be informed of it any other way: And 'tis from the paſſing and bruiſing theſe Caruncles, and forcing and breaking the little membranes, (which is done by the yard in the firſt act of copulation), that there happens an effuſion of blood; after which they remain ſeparated, and never recover their firſt figure, but become more and more flat as the acts of copulation are increaſed; and in thoſe that have children they are almoſt totally defeated, by reaſon of the great diſtention theſe parts ſuffer in the time of their labour. Their uſe is to ſtraiten the neck of the womb, to hinder the cold air from incommoding it, and likewiſe to increaſe mutual pleaſure in the act of coition; for the caruncles being then extremely ſwelled and filled with blood and ſpirits, they cloſe with more pleaſure upon the yard of the man, whereby the woman is much more delighted. What I have ſaid of the effuſion of blood which happens in the firſt act of copulation, though when it happens it is an undoubted ſign of virginity, ſhewing the Caruncles Myrtiformes have never been preſſed till then, yet when there happens no blood, it is not always a ſign that virginity is loſt before; for the Hymen may be broken without copulation by the defluction of ſharp humours, which ſometimes happens to young virgins, becauſe in them it is thinneſt: It is alſo done by the unſkilful applying of beſtaries to provoke the terms, &c. But theſe things happen ſo rarely, that thoſe virgins to whom it ſo happens do thereby bring themſelves under a juſt ſuſpicion.

6. There is next to be ſpoken of the neck of the womb, which

which is nothing elſe but the diſtance between the privy paſſage and the mouth of the womb, into which the man's yard enters in the act of copulation; and in women of reaſonable ſtature is about eight inches in length. 'Tis of a membranous ſubſtance, fleſhy without, ſkinny, and very much wrinkled within; that it both may retain the ſeed caſt into it in the act of copulation, and alſo that it may dilate and extend itſelf to give ſufficient paſſage to the infant at its birth. It is compoſed of two membranes, the innermoſt of them being white, nervous, and circularly wrinkled, much like the palate of an ox, that ſo it might either contract or dilate itſelf according to the bigneſs or length of the man's yard; and to the end, that by the colliſion, or ſqueezing, or preſſing made by the yard in copulation, the pleaſures may be naturally augmented. The external or outmoſt membrane is red and fleſhy like the muſcle of the Fundament, ſurrounding the firſt, to the end the yard may be the better cloſed within it; and it is by means of this membrane that the neck adheres the ſtronger both to the bladder and the right guts. The internal membrane in young girls is very ſoft and delicate, but in women much addicted to copulation it grows harder; and in thoſe that are grown aged, if they have been given much to venery, it is almoſt become griſly.

2dly, Having ſpoken of the privy paſſage, I come now to ſpeak of the Womb, which the Latins call Matrix, yet the only Engliſh word is the womb. Its parts are two; the mouth of the womb, and the bottom of it. The mouth is an orifice at the entrance into it, which may be dilated and ſhut together like a purſe; for although in the act of copulation it be big enough to receive the glans of the yard, yet after conception it is ſo cloſe and ſhut, that it will not admit of the point of a bodkin to enter; and yet again at the time of the woman's delivery it is opened ſo extraordinary, that the infant paſſeth through it into the world; at which time this orifice wholly diſappears, and the womb ſeems to have but one great cavity, from its bottom to the very entrance of the neck. When a woman is not with child it is a little oblong, and of ſubſtance very thick and cloſe; but when ſhe is with child it is ſhortened and its thickneſs diminiſheth proportionably to its diſtention: And therefore it is a miſtake of ſome anatomiſts to affirm, that its ſubſtance waxeth

thicker a little before a woman's labour; for any one's reaſon will inform them, that the more diſtended it is the thinner it muſt be, and the nearer a woman is to the time of her delivery the ſhorter her womb muſt be extended. As to the action by which this inward orifice of the womb is opened and ſhut, it is purely nature; for, were it otherwiſe, there would not be ſo many baſtards begotten as there are; nor would many married women have ſo many children were it at their own choice, but they would hinder conception, though they would be willing enough to uſe copulation; for nature has attended that action with ſomething ſo pleaſing and delightful, that they are willing to indulge themſelves in the uſe thereof, notwithſtanding the pains they afterwards endure, and the hazard of their lives that often follow it: And this comes to paſs not ſo much from any inordinate luſt in women, as for that the great Director of Nature, for the increaſe and multiplication of mankind, and even of all other ſpecies in the elementary world, hath placed ſuch a magnetic virtue in the womb, that it draws the ſeed to it as the load-ſtone draws iron.

The Author of Nature has placed the womb in the belly, that the heat might always be maintained by the warmth of the parts ſurrounding it; it is therefore ſeated in the middle of the Hypogaſtrium, (or lower part of the belly) between the bladder and the Rectum, (or right gut) by which alſo it is defended from any hurt through the hardneſs of the bones; and is placed in the lower part of the belly for the conveniency of copulation, and of a birth's being thruſt out at the full time.

It is of a figure almoſt round, inclining ſomewhat to an oblong, in part reſembling a pear; for, from being broad at the bottom, it gradually terminates in the point of the orifice which is narrow.

The length, breadth, and thickneſs of the womb differ according to the age and diſpoſition of the body: For in virgins not ripe it is very ſmall in all its dimenſions, but in women whoſe terms flow in great quantities, and ſuch as frequently uſe copulation, it is much larger; and if they had children, it is larger in them than in ſuch as have none; but in women of a good ſtature, and well ſhaped, it is (as I have ſaid before) from the entry of the privy parts to the bottom of the womb, uſually about eight, but the length of the body

body of the womb alone does not exceed three inches, the breadth thereof is near about the ſame, and of the thickneſs of the little finger, when the woman is not pregnant; but when the woman is with child it becomes of a prodigious greatneſs, and the nearer ſhe is to her delivery the more is the womb extended.

It is not without reaſon then that nature (or the God of nature rather) has made the womb of a membranous ſubſtance; for thereby it does the eaſier open to conceive, and is gradually dilated from the growth of the Fœtus, or young one, and is afterwards contracted and cloſed again, to thruſt forth both it and the after-burden, and then to retire to its primitive ſeat. Hence alſo it is enabled to expel any noxious humours which may ſometimes happen to be contained within it.

Before I have done with the womb, which is the field of generation, and ought therefore to be the more particularly taken care of, (for as the ſeeds of plants can produce no fruits, nor ſpring unleſs ſown in ground proper to waxen and excite their vegetative virtue, ſo likewiſe the ſeed of a man, though potentially containing all the parts of a child, would never produce ſo admirable an effect if it were not caſt into the fruitful field of nature, the womb) I ſhall proceed to a more particular deſcription of the parts thereof, and the uſes to which nature has deſigned them.

The womb then is compoſed of various ſimilary parts, that is, of membranes, veins, arteries, and nerves. Its membranes are two, and they compoſe the principal part of its body; the outmoſt of which ariſeth from the Peritoneum, or cawl, and is very thin, without ſmooth, but within equal, that it may the better cleave to the womb, as it were fleſhy and thicker than any elſe we meet within the body when a woman is not pregnant and is interwoven with all ſorts of fibres or ſmall ſtrings, that it may the better ſuffer the extenſion of the child, and the waters cauſed during the pregnancy, and alſo that it may the eaſier cloſe again after delivery.

The veins and arteries proceed both from the Hypogaſtrics and the Spermatic Veſſels, of which I ſhall ſpeak by and by; all theſe are inſerted and terminated in the proper membrane of the womb. The arteries ſupply it with blood for its nouriſhment, which, being brought thither in too great a quan-

a quantity, ſweats through the ſubſtance of it, and diſtils as it were a dew into the bottom of its cavity; from whence do proceed both the terms in ripe virgins, and the blood which nouriſheth the Embryo in breeding women. The branches which iſſue from the Spermatic Veſſels are inſerted in each ſide of the bottom of the womb, and are much leſs than thoſe which proceed from the Hypogaſtrics, thoſe being greater, and bedewing the whole ſubſtance of it. There are yet ſome other ſmall veſſels, which, ariſing the one from the other, are conducted to the internal orifice, and by theſe, thoſe that are pregnant do purge away the ſuperfluity of their terms when they happen to have more than is uſed in the nouriſhment of the infant; by which means nature hath taken ſuch care of the womb, that, during its pregnancy, it ſhall not be obliged to open itſelf for the paſſing away thoſe excrementious humours, which, ſhould it be forced to do, might often endanger abortion.

As touching the nerves, they proceed from the brain, which furniſhes all the inner parts of the lower belly with them, which is the true reaſon it hath ſo great a ſympathy with the ſtomach, which is likewiſe very conſiderably furniſhed from the ſame part; ſo that the womb cannot be afflicted with any pain but the ſtomach is immediately ſenſible thereof, which is the cauſe of thoſe loathings or frequent vomitings which happen to it.

But, beſides all theſe parts which compoſe the womb, it hath yet four ligaments, whoſe office is to keep it firm in its place, and prevent its conſtant agitation, by the continual motion of the inteſtine which ſurrounds it, two of which are above and two below: Thoſe above are called the broad ligaments, becauſe of their broad and membranous figure, and are nothing elſe but the production of the Peritoneum, which, growing out of the ſide of the loins towards the reins, come to be inſerted in the ſides of the [illegible]trom of the womb, to hinder the body from bearing too much on the neck and ſo from ſuffering a precipitation, as will ſometimes happen when the ligaments are too much relaxed; and do alſo contain the teſticles, and as well ſafely conduct the different veſſels as the ejaculatories to the womb. The lowermoſt are called round ligaments, taking their original from the ſide of the womb near the horn, from whence they paſs the groin, together with the production of the Peritoneum, which

which accompanies them through the rings and holes of the oblique and tranſverſe muſcles of the belly, which they divide themſelves into many little branches, reſembling the foot of a gooſe, of which ſome are inſerted into the Os Pubis, and the reſt are loſt and confounded with the membranes that cover the upper and interior parts of the thigh; and it is that which cauſes the numbneſs which women with child feel in their thighs. Theſe two ligaments are long, round, and nervous, and pretty big in their beginning near the Matrix, hollow in their riſe, and all along to the Os Pubis, where they are a little ſmaller, and become flat, the better to be inſerted in the manner aforeſaid: it is by their means the womb is hindered from riſing too high. Now, although the womb is held in its natural ſituation by means of theſe four ligaments, yet it has liberty enough to extend itſelf when pregnant, becauſe they are very looſe, and ſo eaſily yield to its diſtention. But beſides theſe ligaments, which keep the womb as it were in a poiſe, yet it is faſtened, for greater ſecurity, by its neck, both to the bladder and Rectum, between which it is ſituated. Whence it comes to paſs, that if at any time the womb be inflamed, it communicates the inflammation to the neighbouring parts.

Its uſe, or proper action in the work of generation, is to receive and retain the ſeed, and to reduce it from power to action by its heat, for the generation of the infant, and is therefore abſolutely neceſſary for the conſervation of the ſpecies. It alſo ſeems by accident to receive and expel the impurities of the whole body, as when women have abundance of whites, and to purge away from time to time the ſuperfluity of the blood, as it doth every month by the evacuation of the blood, as when a woman is not with child. And thus much ſhall ſuffice for the deſcription of the womb, on which I have been the larger, becauſe, as I have ſaid before, it is the field of generation.

3dly, The next thing to be deſcribed in the genitals of women is the Teſticles or ſtones, for ſuch women have as well as men, but are not for the ſame uſe, and indeed are different from thoſe in men in ſeveral particulars; as 1ſt, In place, being within the belly; whereas in men they are without. 2dly, In figure, being uneven in women, but ſmooth in men. 3dly, In magnitude, being leſſer in women than in men. 4thly, They are not fixed in women by muſcles, but by ligatures.

tures. 5thly, They have no proſtrates or kernels as men have. 6thly, They differ in form, being depreſſed or flattiſh in women, but oval in men. 7thly, They have but one ſkin, whereas men have four; for the ſtones of men being more expoſed, nature has provided for them accordingly. 8thly, Their ſubſtance is more ſoft than in men. And, 9thly, Their temperature is colder than men. And as they differ in all theſe reſpects, ſo do they alſo in their uſe, for they perform not the ſame actions as mens, as I ſhall ſhew preſently. As for their ſeat, it is in the hollowneſs of the abdomen, and therefore not extremely pendulous, but reſt upon the ova or egg. 'Tis true Galen and Hippocrates did erroneouſly imagine, that the ſtones in women did both contain and elaborate the ſeed, as thoſe do in men, but it is a great miſtake: For the teſticles of a woman are as it were no more than two cluſters of eggs, which lie there to be impregnated by the moſt ſpirituous particles, or animating effluviums conveyed out of the womb through the two tubes, or different veſſels: But, however, the ſtones in women are very uſeful; for where they are defective, generation work is at an end. For though theſe little bladders, which are on their ſuperfices, contain nothing of ſeed, yet they contain ſeveral eggs, (commonly to the number of twenty in each teſticle) one of which being impregnated in the act of coition, by the moſt ſpirituous part of the ſeed of the man, deſcends through the oviducts into the womb, and there in proceſs of time becomes a living child.

4thly, I am now to ſpeak of the Spermatic Veſſels in women, which are two, and are faſtened in their whole extent by a membranous appendix to the broad ligament of the womb: Thoſe do not proceed from the teſticles as in men, but are diſtant from them a finger's breadth at leaſt; and being diſpoſed after the manner of the Miſeraic Veins, are trained along this membranous diſtance between the different veſſels and the teſticles. Their ſubſtance is, as it were, nervous and moderately hard; they are round, hollow, big, and broad enough at their end, joining to the horn of the womb. Some authors affirm, that by theſe women diſcharge their ſeed into the bottom of the womb; but the whole current of our modern authors run quite another way, and are poſitive that there is no ſeed at all in their veſſels; but that after the egg or eggs, in the Ovaria or teſticles, are impregnated

pregnated by the ſeed of the man, they deſcend through theſe two veſſels into the womb, where being placed, the embryo is nouriſhed. Theſe veſſels are ſhorter in women than they are in men; for the ſtones of a woman lying within the belly, their paſſage muſt needs be ſhorter; but their various wreathings and windings in and out makes amends for the ſhortneſs of their paſſage. Theſe veſſels are not united before they come to the ſtones, but divide themſelves into two branches, whereof the biggeſt only paſſes through the teſticles, the leſſer to the womb, both for the nouriſhment of itſelf and the infant in it. I will only obſerve further, that theſe ſpermatic veins receive the arteries as they paſs by the womb, and ſo there is a mixture between vital and natural blood, that ſo the work might be the better wrought; and that it is ſo, appears by this, that if you blow up the ſpermatic vein, you may perceive the right and left veſſel of the womb blown up; from whence alſo the communion of all the veſſels of the womb may be eaſily perceived.

The deferentio, or carrying veſſels, ſpring from the lower part of the teſticles, and are in colour white, and in ſubſtance ſinewy, and paſs not the womb ſtraight, but wreathed with ſeveral turnings and windings, as was ſaid of the ſpermatic veſſels, that ſo the ſhortneſs of the way may be likewiſe recompenſed by their winding meanders; yet near the womb they become broad again. They proceed in two parts from the womb, which reſemble horns, and are therefore called the horns of the womb. And this is all that is needful to be known or treated of concerning the parts of generation both in men and women.

Only ſince our modern anatomiſts and phyſicians are of different ſentiments from the ancients, touching the woman's contributing of ſeed for the formation of the child as well as the man; the ancients ſtrongly affirming it, but our modern authors being generally of another judgment; I will here declare the ſeveral reaſons for their different opinions, and ſo paſs on.

SECT. III. *Of the Differences between the ancient and modern Phyſicians, touching the Woman's contra-uniting Seed to the formation of the Child.*

I WILL not make myſelf a party in this controverſy, but ſet down impartially, but yet briefly, the arguments on each ſide, and leave the judicious reader to judge for himſelf.

Though it is apparent, ſay the ancients, that the ſeed of man is the principal, efficient, and beginning of action, motion and generation, yet that the woman affords ſeed, and contributes to the procreation of the child, is evident from hence, that the woman has ſeminal veſſels, which has been given her in vain had ſhe wanted ſeminal excreſcence; but ſince nature forms nothing in vain, it muſt be granted they were made for the uſe of ſeed and procreation, and fixed in their proper places to operate, and contribute virtue and efficacy to the ſeed: and this, ſay they, is further proved from hence, that if women at years of maturity uſe not copulation to eject their ſeed, they often fall into ſtrange diſeaſes, as appears by young women and virgins; and alſo it is apparent, that women are never better pleaſed than when they are often ſatisfied this way, which argues the pleaſure and delight they take herein; which pleaſure and delight, ſay they, is double in women to what it is in men: for, as the delight of men in copulation conſiſts chiefly in the emiſſion of the ſeed, ſo women are delighted both in the emiſſion of their own, and the reception of the man's.

But againſt all this our modern authors affirm, that the ancients were never erroneous; foraſmuch as the teſticles in women do not afford ſeed but are two eggs, like thoſe of fowls and other creatures, neither have they any ſuch offices as men, but indeed are an Ovarium, or receptacle for eggs, wherein theſe eggs are nouriſhed by the ſanguinary veſſels diſperſed through them; and from thence one or more, as they are fœcundated by the man's ſeed, are conveyed into the womb by the oviducts. And the truth of this, ſay they, is ſo plain, that if you boil them, their liquor will have the ſame taſte, colour, and conſiſtency with the taſte of birds eggs. And if it be objected that they have no ſhells, the anſwer is eaſy; for the eggs of fowls, while they

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are in the ovary, nay, after they are fallen into the Uterus, have no ſhell; and though they have one when they are lain, yet it is no more than a fence, which nature has provided for them againſt outward injuries, they being hatched without the body; but thoſe of women being hatched within the body, hath no need of any other fence than the womb to ſecure them.

They alſo further ſay there are in the generation of the fœtus, or young ones, two principles, active and paſſive: the active is the man's ſeed, elaborated in the teſticles, out of the arterial blood and animal ſpirits; the paſſive principle is the ovum, or egg, impregnated by the man's ſeed; for to ſay that women have true ſeed (ſay they) is erroneous. But the manner of conception is this: The moſt ſpirituous part of man's ſeed in the act of copulation, reaching up to the ovarium or teſticles of the woman, (which contains divers eggs, ſometimes more ſometimes fewer,) impregnates one of them, which, being conveyed by the oviducts of the bottom of the womb, preſently begins to ſwell bigger and bigger, and drinks in the moiſture that is plentifully ſent thither, after the ſame manner that the ſeeds in the ground ſuck the fertile moiſture thereof to make them ſprout.

But, notwithſtanding what is here urged by our modern anatomiſts, there are ſome late writers of the opinion of the ancients, viz. that women have both, and emit ſeed in the act of copulation; and the good women themſelves take it ill to be thought merely paſſive in thoſe wars wherein they make ſuch vigorous encounters, and poſitively affirm they are ſenſible of the emiſſion of their ſeed in thoſe engagements, and that in it a great part of the delight which they take in that act conſiſts: I will not therefore go about to take any of their happineſs away from them, but leave them in the poſſeſſion of their imagined felicity.

Having thus laid the foundation of this work, in the deſcription I have given of the parts dedicated to the work of generation both in man and woman, I will now proceed to ſpeak of conception, and of thoſe things that are neceſſary to be obſerved by women from the time of their conception to the time of their delivery.

CHAP. III.

Of Conception; what it is, the Signs thereof, whether conceived of a Male or Female; how Women are to order themſelves after Conception.

SECT. I. *What Conception is, and the Qualification requiſite thereto.*

CONCEPTION is nothing elſe but an action of the womb, by which the prolific ſeed is received and retained, that an infant may be engendered and formed out of it. There are two ſorts of conception; the one according to nature, which is followed by the generation of the infant in the womb; the other is falſe and wholly againſt nature, in which the ſeed changes into water, and produces only falſe conception, moles, or other ſtrange matter. Now there are three things principally neceſſary in order to a true conception, ſo that generation may follow; to wit, diverſity of ſex, congreſſion, and emiſſion of ſeed. Without diverſity of ſexes there can be no conception: For though ſome will have a woman to be an animal that can engender of herſelf, it is a great miſtake; there can be no conception without a man to diſcharge his ſeed into her womb. What they alledge of pullets laying eggs without a cock's treading them is nothing to the purpoſe; for thoſe eggs, ſhould they be ſet under a hen, will never become chickens, becauſe they never received any prolific virtue from the male; which is abſolutely neceſſary to this purpoſe, and is ſufficient to convince us that diverſity of ſex is neceſſary even to thoſe animals as well as to the generation of man. But diverſity of ſex, though it be neceſſary to conception, yet it wont do alone: there muſt alſo be a congreſſion of thoſe different ſexes; for diverſity of ſex would profit little if copulation did not follow. I confeſs I have heard of ſome ſubtile women, who, to cover their ſin and ſhame, have endeavoured to perſuade ſome peaſant that they were never touched by man to get them with child: and that one in particular pretended to conceive, by going into a bath where a man had waſhed himſelf a little before, and ſpent his ſeed in it, which was drawn and ſucked into her womb,

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as ſhe pretended: But ſuch ſtories as theſe are only fit to amuſe them that know no better.—Now that theſe different ſexes ſhould be obliged to come to the touch, which we call copulation or coition, beſides the natural deſire of begetting their like, which ſtirs up men and women to it, the parts appointed for generation are endowed by nature with a delightful and mutual itch, which begets in them deſire to the action; without which, it would not be very eaſy for a man, born for the contemplation of divine myſteries, to join himſelf by the way of coition to a woman, in regard of the uncleanneſs of the part and of the action: and on the other ſide, if women did but think of thoſe pains and inconveniencies to which they are ſubject by their great bellies, and thoſe hazards even of life itſelf, beſides the unavoidable pains that attend their delivery, it is reaſonable to believe they would be affrighted from it. But neither ſex make theſe reflections till after the action is over, conſidering nothing before-hand but the pleaſure of enjoyment. So that it is from this voluptuous itch that nature obligeth both ſexes to his congreſſion. Upon which the third thing followeth of courſe, to wit, the emiſſion of ſeed into the womb in the act of copulation. For the woman having received this prolific ſeed into her womb, and retained it there, the womb thereupon becomes compreſſed, and embraces the ſeed ſo cloſely, that being cloſed, the point of a needle, as ſaith Hippocrates, cannot enter it without violence; and now the woman may be ſaid to have conceived; being reduced by its heat from power into action, the ſeveral faculties which are in the ſeed it contains making uſe of the ſpirits with which the ſeed abounds, and which are the inſtruments by which it begins to trace out the firſt lineaments of all the parts; to which afterwards, of making uſe of the menſtruous blood flowing to it, it gives in time growth and final perfection. And thus much ſhall ſuffice to ſhew what conception is. I ſhall now proceed to ſhew,

SECT. II. *The Signs of Conception.*

THERE are many prognoſtics or ſigns of conception: I will name ſome of the chief, which are the moſt certain, and let alone the reſt.

1. If a woman has been more than ordinary deſirous of copulation, and hath taken more pleaſure than uſual therein, (which upon recollection ſhe may eaſily know) it is a ſign of conception.

2. If ſhe retain the ſeed in her womb after copulation; which ſhe may know if ſhe perceives it not to flow down from the womb as it uſed to do before; for that is a ſure ſign the womb has received it into the inward orifice, and there retains it.

3. If ſhe finds a coldneſs and chillineſs after copulation, it ſhews the heat retired to make conception.

4. If, after this, ſhe begins to have loathings to thoſe things which ſhe loved before, and this attended with a loſs of appetite, and a deſire after meats to which ſhe was not affected before, and hath often nauſeatings and vomitings, with ſour belchings, and exceeding weakneſs of ſtomach.

5. After conception the belly waxeth very flat, becauſe the womb cloſeth itſelf together, to nouriſh and cheriſh the ſeed, contracting itſelf ſo as to leave no empty ſpace.

6. If the veins of the breaſt are more clearly ſeen than they were wont to be, it is a ſign of conception.

7. So it is if the tops of the nipples look redder than formerly, and the breaſts begin to ſwell, and grow harder than uſual, eſpecially if this be attended with pain and ſoreneſs.

8. If a woman has twiſting and griping pains, much like thoſe of the cramp in the belly, and about her navel, it is a ſign ſhe has conceived.

9. If under the lower eye-lid the veins be ſwelled, and appear clearly, and the eye be ſomething diſcoloured, it is a certain ſign ſhe is with child, unleſs ſhe have her Menſes at the ſame time upon her, or that ſhe has ſat up the night before. This ſign has never failed.

10. Some alſo make this trial of conception: They ſtop the woman's urine in a glaſs or phial for three days, and then ſtrain it through a fine linen cloth, and if they find ſmall living creatures in it, they conclude that the woman has certainly conceived.

11. There is alſo another eaſy trial: Let the woman that ſuppoſes ſhe has conceived take a green nettle and put it into her urine, cover it cloſe, and let it remain therein a whole night: if the woman be with child it will be full of red

red ſpots on the morrow; but if ſhe be not with child it will be blackiſh.

12. The laſt ſign I ſhall mention is that which is moſt obvious to every woman, which is the ſuppreſſion of the terms: For, after conception, nature makes uſe of that blood for the nouriſhment of the embryo which before was caſt out by nature, becauſe it was too great in quantity. For it is an error to think that the menſtrual blood, ſimply in itſelf conſidered, is bad: becauſe, if a woman's body be in good temper, the blood muſt needs be good; and that it is voided monthly is, becauſe it offends in quantity, but not in quality. But though the ſuppreſſion of the terms is generally a ſure ſign of conception to ſuch perſons as have had them orderly before, yet the having them always is not a ſign there is no conception: Foraſmuch as many that have been with child have had their terms, and ſome even till the fifth or ſixth month which happens according to the woman's being more or leſs ſanguine; for if a woman has more blood than will ſuffice for the nouriſhment of the embryo, nature continues to void it in the uſual way. Whence the experienced Midwife may learn there are few general rules which do not ſometimes admit of an exception. But this ſhall ſuffice to be ſpoken of the ſigns and prognoſtics of conception.

SECT. III. *Whether Conception be of a Male or Female.*

AUTHORS give us ſeveral prognoſtics of this; though they are not at all to be truſted, yet there is ſome truth among them: The ſigns of a male child conceived are.

1. When a woman at her riſing up is more apt to ſtay herſelf upon her right hand than her left.

2. Her belly lies rounder and higher than when ſhe has conceived of a female.

3. She firſt feels the child to beat on her right ſide.

4. She carries her burden more light, and with leſs pain, than when it is a female.

5. Her right nipple is redder than the left, and her right breaſt harder and more plump.

6. Her colour is more clear, nor is ſhe ſo ſwarthy as when ſhe has conceived a female.

7. Obſerve the circle under her eye, which is a pale and

bluiſh colour; and if that under her right eye be moſt apparent, and moſt diſcoloured, ſhe has conceived a ſon.

8. If ſhe would know ſhe hath conceived of a ſon or a daughter, let her milk a drop of her milk into a baſon of fair water; if it ſpreads and ſwims at top, it certainly is a boy; but if it ſinks to the bottom as it drops in round in a drop, it is a girl. This laſt is an infallible rule. And in all it is to be noted, that what is a ſign of a male conception, the contrary holds good of a female.

SECT. IV. *How a woman ought to order herſelf after Conception.*

MY deſign in this treatiſe being brevity, I ſhall pretermit all that others ſay of the cauſes of twins, and whether there be any ſuch thing as ſuperfœtations, or a ſecond conception in a woman, which is yet common enough, when I come to ſhew you how the midwife ought to proceed in the delivery of theſe women that are pregnant with them. But having already ſpoke of conception, I think it now neceſſary to ſhew how ſuch as have conceived ought to order themſelves during their pregnancy, that they may avoid thoſe inconveniencies which often endanger the life of the child, and many times their own.

A woman after her conception, during the time of her being with child, ought to be looked on as indiſpoſed or ſick, though in good health; for child-bearing is a kind of one month's ſickneſs, being all that time in expectation of many inconveniencies, which ſuch a condition uſually cauſes to thoſe that are not well governed during that time; and therefore ought to reſemble a good pilot, who, when ſailing in a rough ſea and full of rocks, avoids and ſhuns the danger if he ſteers with prudence; but if not, 'tis a thouſand to one but he ſuffers ſhipwreck. In like manner a woman with child is often in danger of miſcarrying and loſing her life, if ſhe is not very careful to prevent thoſe accidents to which ſhe is ſubject all the time of her pregnancy; all which time her care muſt be double, firſt of herſelf, and ſecondly of the child ſhe goes with; for otherwiſe a ſingle error may produce a double miſchief; for if ſhe receives any prejudice, her child alſo ſuffers with her.

Let a woman therefore after conception obſerve a good diet,

diet, ſuitable to her temperament, cuſtom, condition, and quality; and if ſhe can let the air where ſhe ordinarily dwells be clear and well tempered, free from extremes either of heat or cold; for being too hot, it diſſipateth the ſpirits too much, and cauſeth many weakneſſes; and by being too cold and foggy, it may bring down rheums and diſtillations on the lungs, and ſo cauſe her to cough, which by its impetuous motions forcing downwards, may make her miſcarry; ſhe ought alſo to avoid all nauſeous and ill ſmells, for ſometimes the ſtink of a candle not well put out may cauſe her to come before her time; and I have known the ſmell of charcoal to have the ſame effect. Let her alſo avoid ſmelling of rue, mint, penny-royal, caſtor, brimſtone, &c.

But with reſpect to her diet, women with child have generally ſo great loathings and ſo many different longings, that it is very difficult to preſcribe an exact diet for them. Only this I think adviſeable, that they may uſe thoſe meats and drinks which are to them moſt delirable, though perhaps not in themſelves ſo wholeſome as ſome others, and it may not be ſo pleaſant; but this liberty muſt be made uſe of with this caution, that what ſhe ſo deſires be not in itſelf abſolutely unwholeſome; and alſo that in every thing they take care of exceſs. But if a child bearing woman finds herſelf not troubled with ſuch longings as we have ſpoken of, and in ſuch quantity as may be ſufficient for herſelf and the child, which her appetite may in a great meaſure regulate; for it is alike hurtful for her to faſt too long as to eat too much, and therefore rather let her eat a little and often, eſpecially let her avoid eating too much at night; becauſe the ſtomach, being too much filled, compreſſeth the diaphragms, and thereby cauſes difficulty of breathing. Let her meat be eaſy of digeſtion, ſuch as the tendereſt parts of beef, mutton, veal, fowls, pullets, capons, pigeons and partridges, either boiled or roaſted, as ſhe likes beſt; new laid eggs are alſo very good for her; and let her put into her broths thoſe herbs that purify it, as ſorrel, lettice, ſuccory, and burrage; for they will purge and purify the blood: let her avoid whatſoever is hot ſeaſoned, eſpecially pies and baked meats, which, being of hot digeſtion, overcharge the ſtomach. If ſhe deſires fiſh, let it be freſh, and ſuch as is taken out of rivers and running ſtreams. Let her eat quinces, or marmalade, to ſtrengthen her child; for which purpoſe ſweet

almonds,

almonds, honey, ſweet apples, and full ripe grapes, are alſo good. Let her abſtain from all ſharp, ſour, bitter and ſalt things, and all things that tend to provoke the terms; ſuch as garlic, onions, olives, muſtard, fennel, with pepper, and all ſpices, except cinnamon, which in the three laſt months are good for her. If at firſt her diet be ſparing, as ſhe increaſes in bigneſs let her diet be increaſed; for ſhe ought to conſider ſhe has a child as well as herſelf to nouriſh. Let her be moderate in her drinking; and if ſhe drinks wine, let it be rather claret than white, (which will breed good blood, help the digeſtion, and comfort the ſtomach, which is always but weakly during her pregnancy,) but white wine being diuretic, or that which provokes urine, ought to be avoided. Let her have a care of too much exerciſe; and let her avoid dancing, riding in a coach, or whatever elſe puts the body into violent motion, eſpecially in her firſt month. But to be more particular, I ſhall here ſet down rules proper for every month for the child-bearing woman to order herſelf, from the time ſhe has firſt conceived to the time of her delivery.

Rules for the firſt Two Months.

AS ſoon as a woman knows (or has reaſon to believe) ſhe hath conceived, ſhe ought to abſtain from all violent motions and exerciſe, whether to walk on foot or ride on horſeback, or in a coach, it ought to be very gently.—Let her alſo abſtain from venery, (to which, after conception, ſhe has uſually no great inclination) leſt there be a mole or ſuperfœtation; which is the adding of one embryo to another.—Let her beware ſhe lift not her arms too high, nor carry great burdens, nor repoſe herſelf on hard and uneaſy ſeats. Let her uſe moderately meat of good juice and eaſy digeſtion, and let her wine be neither too ſtrong nor too ſharp, but a little mingled with water; or if ſhe be very abſtemious, ſhe may uſe water wherein cinnamon is boiled. Let her avoid faſtings, thirſt, watching, mourning, ſadneſs, anger, and all other perturbations of the mind. Let none preſent any ſtrange or unwholeſome things to her, nor ſo much as name it, leſt ſhe ſhould deſire it and not be able to get it, and ſo either cauſe her to miſcarry, or the child have ſome deformity on that account. Let her belly be kept looſe with prunes, raiſins, or manna in her broth; and let her uſe the

the following electuary to ſtrengthen the womb and the child.

"Take conſerve of burrage, bugloſs, and red roſes, each two ounces; of balm an ounce, citron peel and ſhebs, mirobolans candied, each an ounce; extract of wood aloes a ſcruple; pearl prepared half a dram; red coral, ivory, each a dram; precious ſtones each a ſcruple; candied nutmegs two drams: and with ſyrup of apples and quinces make an electuary."

Let her obſerve the following Rules.

"Take pearls prepared a dram; red coral prepared and ivory, each half a dram; precious ſtones, each a ſcruple; yellow citron peels, mace, cinnamon, cloves, each half a dram; ſaffron a ſcruple, wood aloes half a ſcruple, ambergreaſe ſix drams, and with ſix ounces of ſugar diſſolved in roſe-water, make rouls." Let her alſo apply ſtrengtheners to the navel, of nutmegs, mace, maſtich, made up in bags, or a toaſt dipped in mamſey, ſprinkled with powder of mint. If ſhe happens to deſire clay, chalk or coals, (as many women with child do) give her beans boiled with ſugar; and if ſhe happens to long for any thing which ſhe cannot obtain, let her preſently drink a large draught of pure cold water.

Rules for the Third Month.

IN this month and the next be ſure to keep from bleeding; for though it may be ſafe at other times it will not be ſo to the end of the fourth month: and yet if too much blood abound, or ſome incident diſeaſe happen, which requires evacuation, you may uſe a cupping glaſs, with ſcarification, and a little blood may be drawn from the ſhoulders and arms, eſpecially if ſhe has been accuſtomed to bleed.—Let her alſo take care of lacing herſelf too ſtraitly, but give herſelf more liberty than ſhe uſed to do; for, incloſing her belly in too ſtrait a mould, ſhe hinders the infant from taking its free growth, and often makes it come before its time.

Rules

Rules for the Fourth Month.

IN this month you ought alſo to keep the child-bearing woman from bleeding, unleſs in extraordinary caſes; but when this month is paſt, blood-letting and phyſic may be permitted, if it be gentle and mild; and perhaps it may be neceſſary to prevent abortion. In this month ſhe may purge in an acute diſeaſe; but purging may be only uſed from the beginning of this month to the end of the ſixth; but let her take care that in purging ſhe uſe no vehement medicine, nor very bitter, as aloes, which is an enemy to the child, and opens the mouth of the veſſels; neither let her uſe Coloquintida, ſchammony, nor turbith; ſhe may uſe caſſia, manna, rhubarb, agaric, and ſenna; but dyacidonium purgans is beſt, with a little of the electuary of the juice of roſes.

Rules for the Fifth, Sixth, and Seventh Months.

IN theſe months child-bearing women are often troubled with coughs, heart beating, fainting, watching, pains in the loins and hips, and bleeding.—The cough is from a ſharp vapour, that comes to the jaws and rough artery from the terms, or from the thin part of that blood gotten into the veins of the breaſt, or falling from the head to the breaſt; this endangers abortion, and ſtrength falls from watching; therefore purge the humours that fall from the breaſt with rhubarb and agaric, and ſtrengthen the head as in a catarrh, and give ſweet lenitives as in a cough. Palpitation and fainting ariſes from vapours that go to it by the arteries, or from blood that aboundeth, and cannot get out at the womb, but aſcends, and oppreſſeth the heart; and in this caſe cordials ſhould be uſed both inwardly and outwardly.—Watching is from ſharp dry vapours that trouble the animal ſpirits; and in this caſe uſe frictions, and let the woman waſh her feet at bed time, and let her take ſyrup of poppies, dried roſes, emulſions of ſweet almonds and white poppy ſeeds. If ſhe be troubled with pains in her loins and hips, as in theſe months ſhe is ſubject to be from the weight of her child, who is now grown big and heavy, and ſo ſtretcheth the ligaments of the womb, and parts adjacent; let her hold it up with ſwathing-bands about her neck.—About this time alſo the

the woman often happens to have a flux of blood, either at the nose, womb, or hemorrhoids from plenty of blood, or from the weakness of the child that takes it not in, or else from evil humours in the blood that stirs up nature to send it forth. And sometimes it happens that the vessels of the womb may be broken, either by some violent motion, fall, cough, or trouble of mind; (for any of these will work that effect) and this is so dangerous, that in such a case the child cannot be well; but if it be from blood only, the danger is no less, provided it flows by the veins of the neck of the womb, for then it prevents plethory, and takes not away the nourishment of the child; but if it proceeds from the weakness of the child that draws it not, abortion of the child often follows, or hard travail, or else she goes beyond her time. But if it flows by the inward veins of the womb, there is more danger by the openness of the womb if it come from evil blood; the danger is alike from cacochimy, which is like to fall upon both. If it arises from plethory, open a vein, but with very great caution, and use astringents, of which this following will do well: "Take pearls prepared, a scruple, red coral two scruples, mace, nutmegs, each a dram; cinnamon, half a dram; make a powder, or with sugar rouls." Or give this powder in broth: "Take red coral, a dram, half a dram precious stones, each half a scruple; red sander half a dram, hole a dram, sealed earth, tormentil roots, each two scruples, with sugar of roses, and manus Christi; with pearl, five drams, make a powder." You may also strengthen the child at the navel: and if there be a cacochimy, alter the humours; and if you may do it safely, evacuate: You may likewise use amulets in her hands and about her neck. In a flux of hemorrhoids wear off the pain; and let her drink hot wine with a toasted nutmeg.—In these months the belly is also subject to be bound: but if it be without any apparent disease, the broth of a chicken, or of veal sodden with oil, or with the decoction of mallows, or marsh mallows, mercury, and linseed put up in a clyster, will not be amiss, but in less quantity than is given in other cases; to wit, of the decoction five ounces, of common oil three ounces, of sugar two ounces, of Cassia fistula one ounce. But if she will not take a clyster, one or two yolks of new laid eggs, or a few pease pottage warm, with a little salt and sugar, supped up a little before meat, will be very convenient: But

if

if her belly ſhall be diſtended, and ſtretched out with wind, a little fennel ſeed and anniſeed reduced into powder, and mingled with honey and ſugar, made after the manner of an electuary, will do very well. Alſo if the thighs and feet ſwell, let them be anointed with oxphrodinum (which is a liquid medicine made with vinegar and roſe water) mingled with a little ſalt.

Rules for the Eighth Month.

THE eighth is commonly the moſt dangerous, and therefore the greateſt care and caution ought to be uſed, and her diet ought to be better in quality, but not more, nor indeed ſo much in quantity as before; but as ſhe muſt abate her diet, ſo ſhe muſt increaſe her exerciſe: and becauſe then women with child, by reaſon the ſharp humours alter the belly, are accuſtomed to weaken their ſpirits and ſtrength, they may well take before meat an electuary of Diarrhodon or Aromaticum Roſatum, or Diamargarton; and ſometimes they may lick a little honey, as they will loathe and nauſeate their meat, may take green ginger, condited with ſugar, or the rinds of citron and oranges condited: and let her often uſe honey for the ſtrengthening of the infant. When ſhe is not far from her labour, let her eat every day ſeven roaſted figs before meat, and ſometimes let her lick a little honey. But let her beware of ſalt and powdered meat, for it is neither good for her nor the child.

Rules for the Ninth Month.

IN the ninth month let her have a care of lifting any great weight; but let her move a little more to dilate the parts, and ſtir up natural heat. Let her take heed of ſtooping, and neither ſit too much nor lie on her ſides; neither ought ſhe to bend herſelf much, leſt the child be unfolded in the umbilical ligament, by which means it often periſheth. Let her walk and ſtir often, and let her exerciſe be rather to go upwards than downwards: Let her diet now eſpecially be light and eaſy of digeſtion; as damaſk prunes with ſugar, or figs and raiſins, before meat; as alſo the yolk of eggs, fleſh and broth of chickens, birds, partridges, and pheaſants; aſtringent and roaſted meats, with rice, hard eggs, millet, and

and ſuch like other things are proper; baths of ſweet water, with emollient herbs, ought to be uſed by her this month with ſome intermiſſion. And after the bath, let her belly be anointed with oil of roſes and violets; but for her privy parts, it is better to anoint them with the fat of hens, geeſe, or ducks, or with oil of lilies, and the decoction of linſeed and fenugreek, boiled with oil of linſeed and marſhmallows, or with the following lineament.

"Take of mallows and marſhmallows, cut and ſhred, of each an ounce; of linſeed, one ounce; let them be boiled from twenty ounces of water to ten; then let her take three ounces of the boiled broth; of oil of almonds, and oil of flower-de-luce, of each one ounce: of deer's ſuet, three ounces; let her bathe with this, and anoint herſelf with it warm."

If for fourteen days before the birth ſhe do every morning and evening bathe and moiſten her belly with muſcadine and lavender water, the child will be much ſtrengthened thereby. And if every day ſhe eat toaſted bread it will hinder any thing from growing to the child. Her privy parts may be alſo gently ſtroaked down with this fomentation:

"Take three ounces of linſeed; of mallows and marſhmallows ſliced, of each one handful; let them be put into a bag, and boiled immediately;" and let the woman with child every morning and evening take the vapour of this decoction in a hollow ſtool, taking great heed that no wind or air come to her in any part, and then let her wipe the part ſo anointed with a linen cloth, that ſhe may anoint the belly and groins as at firſt. When ſhe is come ſo near her time as to be within ten or fourteen days thereof, if ſhe begins to feel any more than ordinary pain, let her uſe every day the following:

"Take mallows and marſhmallows, of each one handful; camomile, hard mercury, maiden hair, of each half a handful; of linſeed, four ounces; let them be boiled in ſuch a ſufficient quantity of water as may make a broth therewith:" But let her not ſit too hot upon the ſear, nor higher than a little above her navel: nor let her ſit on it longer than about half an hour, leſt her ſtrength languiſh and decay; for it is better to uſe it often than to ſtay too long in it. And thus have I ſhewn how a child bearing woman ought to govern herſelf in each month during her pregnancy; how ſhe muſt

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order herſelf at her delivery, ſhall be ſhewn in another chapter, after I have firſt ſhewn the induſtrious Midwife how the child is formed in the womb, and the manner of its decumbiture there.

CHAP. I

Of the Parts proper to a Child in the Womb: How it is formed there, and the manner of its Situation therein.

IN the laſt chapter I treated of conception, ſhewed what it was, how accompliſhed, its ſigns, and how ſhe who had conceived ought to order herſelf during the time of her pregnancy. Now, before I come to ſpeak of her delivery, it is neceſſary that the Midwife be firſt acquainted with the parts proper to a child in the womb, and alſo that ſhe ſhews how it is formed, and the manner of its ſituation and decumbiture there; which are ſo neceſſary to her, that without the knowledge thereof no one can tell how to deliver a woman as ſhe ought. This therefore ſhall be the work of this chapter. I ſhall begin with the firſt of theſe.

SECT. I. *Of the Parts proper to a Child in the Womb.*

IN this ſection I muſt firſt tell you what I mean by the parts proper to the child in the womb, and they are only thoſe that either help or nouriſh it, whilſt it is lodged in that dark repoſitory of nature, and that help to clothe and defend it there, and are caſt away, as of no more uſe, after it is born; and theſe are two, to wit, the umbilicurs, or navel veſſels, and the ſecundinum: By the firſt it is nouriſhed, and by the ſecond clothed and defended from wrong. Of each of theſe I ſhall ſpeak diſtinctly; and, firſt,

Of the Umbilicurs, or Navel-Veſſels.

THESE are four in number, viz. one vein, two arteries, and the veſſel which is called Urachos: 1. The vein is that by which the infant is nouriſhed, from the time of its conception till the time of its delivery; till, being brought into the light of this world, it has the ſame way of concocting its food that we have. This vein ariſeth from the liver of the child, and is divided into two parts when it hath paſſed

paſſed the navel; and theſe two are again divided and ſubdivided, the branches being upheld by the ſkin called Chorion, (of which I ſhall ſpeak by and by) and are joined to the veins of the mother's womb, from whence they have their blood for the nouriſhment of the child. 2 The arteries are two on each ſide, which proceed from the back branches of the great artery of the mother; and the vital blood is carried by theſe to the child, being ready concocted by the mother. 3 A nervous or ſinewy production is led from the bottom of the bladder of the infant to the navel, and this is called Urachos; and its uſe is to convey the urine of the infant from the bladder to the Alantois. Anatomiſts do very much vary in their opinions concerning this, ſome denying any ſuch thing to be in the delivery of women, and others on the contrary affirming it: but experience has teſtified there is ſuch a thing. For Bartholomew Carbrolius, the ordinary doctor of anatomies to the college of phyſicians at Montpelier in France, records the hiſtory of a maid, whoſe water being a long time ſtopped, at laſt iſſued out through her navel. And Johannes Fernelius ſpeaks of the ſame thing that happened to a man of thirty years of age, who having a ſtoppage in the neck of the bladder, his urine iſſued out of his navel many months together, and that without any prejudice at all to his health, which he aſcribed to the ill lying of his navel, whereby the Urachos was not well dried. And Volchier Coitas quotes ſuch another inſtance in a maid of 34 years of age at Nuremburg in Germany. Theſe inſtances, though they happen but ſeldom, are very ſufficient to prove that there is ſuch a thing as an Urachos in men. Theſe four veſſel before mentioned, to wit, one vein, two arteries, and the Urachos, do join near to the navel, and are united by a ſkin which they have from the chorion, and ſo become like a gut or rope, and are altogether void of ſenſe; and this is that which the good women call the navel-ſtring. The veſſels are thus joined together, that ſo they might neither be broken, ſevered, nor entangled; and when the infant is born are of no uſe, ſave only to make up the ligament which ſtops the hole of the navel, and ſome other phyſical uſe, &c.

Of the Secundine, or After-birth.

SETTING aſide the name given to this by the Greeks and Latins, it is called in Engliſh by the name of Secundine, after-birth, and after-burden, which are held to be four in number.

1. The firſt is called Placentia, becauſe it reſembles the form of a cake, and is knit both to the navel and Chorion, and makes up the greateſt part of the ſecundine or after-birth. The fleſh of it is like that of the milt, or ſpleen, ſoft, red, and tending ſomething to blackneſs, and hath many ſmall veins and arteries in it; and certainly the chief uſe of it is for containing the child in the womb.

2. The ſecond is the Chorion. This ſkin, and that called the Amnios, involve the child round, both above and underneath, and on both ſides, which the Alantois doth not: This ſkin is that which is moſt commonly called the ſecundine, as it is thick and white, garniſhed with many ſmall veins and arteries, ending in the Placentia before named, being very light and ſlippery. Its uſes is not only to cover the child round about, but alſo to receive and ſafely bind up the roots, and the veins and arteries, or navel veſſels before deſcribed.

3. The third thing which makes up the ſecundine is the Alantois, of which there is a great diſpute amongſt anatomiſts; ſome ſay there is ſuch a thing, and others that there is not: Thoſe that will have it to be a membrane ſay it is white, ſoft, and exceeding thin, and juſt under the Placentia, where it is knit to the Urachos, from whence it receives the urine; and its office is to keep it ſeparate from the ſweat, that the ſaltneſs of it may not offend the tender ſkin of the child.

4. The fourth and laſt covering of the child is called Amnios, and it is white, ſoft, and tranſparent, being nouriſhed by ſome very ſmall veins and arteries. Its uſe is not only to enwrap the child round, but alſo to retain the ſweat of the child.

Having thus deſcribed the parts proper to the child in the womb, I will next proceed to ſpeak of the formation of the child therein, as ſoon as I have explained the hard terms in this ſection, that thoſe for whoſe help this is deſigned may underſtand what they read. There is none, ſure, can be ſo ignorant as not to know that a vein is that which receives

blood

blood from the liver, and diſtributes it in ſeveral branches to all the parts of the body. Arteries proceed from the heart, are in a continual motion, and by their continual motion quicken the body. Nerve is the ſame with ſinew, and is that by which the brain adds ſenſe and motion to the body. Placentia properly ſignifies a ſugar cake; but in this ſection it is uſed to ſignify a ſpungy piece of fleſh, reſembling a cake full of veins and arteries, and is made to receive the mother's blood appointed for the infant's nouriſhment in the womb. Chorion is the outward ſkin which compaſſeth the child in the womb. The Amnios is the inner ſkin which compaſſeth the child in the womb. The Alantois is the ſkin that holds the urine of the child during the time that it abides in the womb. The Urachos is the veſſel that conveys the urine from the child in the womb to the Alantois. ——I now proceed to

SECT. II. *Of the formation of the Child in the Womb.*

TO ſpeak of the formation of the child in the womb we muſt begin where nature begins; and that is, at the act of coition, in which the womb having received the generative ſeed, without which there can be no conception, the womb immediately ſhuts up itſelf ſo cloſe that not the point of a needle can enter the inward orifice; and this it does partly to hinder the iſſuing out of the ſeed again, and partly to cheriſh it by an inbred heat, the better to provoke it to action; which is one reaſon why womens bellies are ſo lank at their firſt conception. The woman having thus conceived, the firſt thing which is operative in the conception is the ſpirit, whereof the ſeed is full, which, nature quickening by the heat of the womb, ſtirs it up to action. This ſeed conſiſts of very different parts, of which ſome are more, and ſome are leſs pure. The internal ſpirits therefore ſeparateth thoſe parts that are leſs pure, which are thick, cold, and clammy, from them that are more pure and noble. The leſs pure are caſt to the outſides, and with them the ſeed is circled round, and of them the membranes are made, in which that ſeed which is the moſt pure is wrapped round, and kept cloſe together, that it may be defended from cold and other accidents, and operate he better.

The firſt thing that is formed is the Amnios, the next the

Chorion; and they enwrap the ſeed round as it were a curtain. Soon after this (for the ſeed thus ſhut up in the woman lies not idle) the navel vein is bred, which pierceth thoſe ſkins, being yet very tender, and carries a drop of blood from the veins of the mother's womb to the ſeed; from which drop is formed the liver, from which liver there is quickly bred the Vena Cava, or chief vein, from which all the reſt of the veins that nouriſh the body ſpring; and now the ſeed hath ſomething to nouriſh it, whilſt it performs the reſt of nature's work, and alſo blood adminiſtered to every part of it to form fleſh.

This vein being formed, the navel arteries are ſoon after formed, then the great artery, of which all others are but branches, and then the heart; for the liver furniſheth the arteries with blood to form the heart, the arteries being made of ſeed, but the heart and the fleſh of blood. After this the brain is formed, and then the nerves, to give ſenſe and motion to the infant. Afterwards the bones and fleſh are formed, and of the bones, firſt the Vertebræ or chin bones, and then the ſkull, &c.

As to the time in which this curious part of nature's workmanſhip is formed, phyſicians aſſign four different ſeaſons wherein this microcoſm is formed, and its formation perfected in the womb: The firſt is immediately after coition; the ſecond time of forming, ſay they, is when the womb by the force of its own innate power and virtue makes a manifeſt mutation or coagulation in the ſeed, ſo that all the ſubſtance thereof ſeems coagulated fleſh and blood, which happens about the twelfth or fourteenth day after copulation; and though this concretion of fleſhy maſs abound with ſpirits, yet it remains undiſtinguiſhable without any form, and may be called a rough draught of the Fœtus or Embryo. The third time in which this fabric is come to ſome further maturity is, when the principal parts may be in ſome meaſure diſtinguiſhed, and one may diſcern the liver, umbilical veins, arteries, nerves, brain, and heart; and this is about eighteen days after conception. The fourth and laſt time aſſigned by phyſicians for the formation of the child, is about the thirtieth day after conception for a male, but, for a female, they tell us forty two or forty five days are required, though for what reaſon I know not, nor does it appear by the birth: for if the male receives its formation fifteen days

ſooner

ſooner than the female, why ſhould it not be born ſo much ſooner too? but, as to that, every day's experience ſhews us the contrary; for women go the full time of nine months both with male and female. But at this time of thirty days (or ſome will have it 45) the outward parts may be alſo ſeen exquiſitely elaborate, and diſtinguiſhed by joints; and from this time the child begins to be animated, though as yet there is no ſenſible motion; and has all the parts of the body, though ſmall and very tender, yet entirely formed and figured, although not longer in the whole than one's middle finger; and from thenceforward, the blood flowing every day more and more to the womb, not by intervals like their courſes, but continually, it grows bigger and ſtronger to the end of nine months, being the full time of a woman's ordinary labour.

Very great have been the diſputes among both philoſophers and phyſicians about the nouriſhment of the child in the womb, both as to what it is, and which way it receives it. Almæon was of opinion, that the infant drew in its nouriſhment by its whole body, becauſe it is rare and ſpungy, as a ſponge ſucks in water on every ſide; and ſo he thought the infant ſucked blood, not only from its mother's veins, but alſo from the womb. Democritus held, that the child ſucked in the nouriſhment at its mouth. Hippocrates affirms, that the child ſucks in both nouriſhment and breath by its mouth from the mother, for which he gives two reaſons: 1. That it will ſuck as ſoon as it is born, and therefore muſt have learnt to ſuck before. 2. Becauſe there are excrements found in the guts as ſoon as it is born But neither of theſe reaſons are ſufficient to prove his aſſertion: For, as to the firſt, "That the child will ſuck as ſoon as it is born," it is from a natural inſtinct; for take a young cat that never ſaw her dam catch a mouſe, and yet ſhe will catch mice herſelf as ſoon as ſhe is able. And as to his ſecond reaſon, it is a ſufficient anſwer to ſay, that the excrements found in the guts of an infant new-born are not excrements of the firſt concoction, which is evident, becauſe they don't ſtink, but are the thickeſt part of the blood, which is conveyed from the veſſels of the ſpleen to the guts. Having therefore ſaid enough to confute the opinion of the child's receiving the nouriſhment by the mouth, I do affirm that the child receives its nouriſhment in the womb by the navel; and that it

ſhould

ſhould be ſo, is much more conſonant to truth and reaſon; which being granted. it will eaſily follow, that the nouriſhment the child receives is by the pure blood conveyed into the liver by the navel vein, which is a branch of the Vena Porta, or gate vein, and paſſeth to the ſmall veins of the liver. Here this blood is made more pure, and the thicker and rawer part of it is conveyed to the ſpleen and kidneys, and the thick excrement of it to the guts, which is that excrement found there ſo ſoon as they are born. The pure part is conveyed to the Vena Cava, and by it diſtributed throughout the body by the ſmall veins, which, like ſo many ſmall rivulets, paſs to every part of it. This blood is accompanied (as all blood is) with a certain watery ſubſtance, the better to convey it through the paſſage it is to run in, which, as in men, is breathed out by ſweating, and contained in the Amnios, as I have already ſaid.

SECT. III. *Of the Manner of the Child's lying in the Womb.*

I COME now to ſhew after what manner the child lies in the womb; a thing ſo eſſential for a midwife to know, that ſhe can be no midwife who is ignorant of it, and yet, even about this, authors extremely differ: For there is not two in ten that agree what is the form that the child lies in the womb, or in what faſhion it lies there; and yet this may ariſe in a great meaſure from the different figures that the child is found in, according to the different times of the woman's pregnancy; for near the time of its deliverance out of thoſe winding chambers of nature, it oftentimes changes the form in which it lay in before for another. Hippocrates affirms the child is ſo placed in the womb as to have its hands, its knees, and its head bent down towards its feet, ſo that it lies round together, its hands upon both its knees, and its face between them; ſo that each eye toucheth each thumb, and its noſe betwixt its knees: and Bartholinus was alſo of the ſame opinion. Columbus deſcribes the poſture of the child thus: "The right arm bowed, the fingers whereof under the ear and above the neck; the head bowed down, ſo that the chin toucheth the breaſt, the left arm bowed above both breaſt and face, and the left arm is propped up by the bending of the right elbow; the legs are lift upwards, the right of which is ſo lifted up that the thigh toucheth the

the belly, the knees the navel, the heel the left buttock, and the foot is turned back and covereth the ſecrets; the left thigh toucheth the belly, and the leg is lifted to the breaſt, the back lying outward." And thus much ſhall ſuffice touching the opinion of authors.

I will now ſhew the ſeveral ſituations of the child in the mother's womb, according to the different times of pregnancy, by which thoſe that are contrary to nature, and are the chief cauſe of all ill labours, will be the more eaſily conceived by the underſtanding midwife: it ought therefore, in the firſt place, to be obſerved, that the infant, as well male as female, is generally ſituated in the midſt of the womb; for though ſometimes to appearance a woman's belly ſeems higher on one ſide than the other, yet it is ſo with reſpect to her belly only, and not of her womb, in the midſt of which it is always placed.

But, in the ſecond place, a woman's great belly makes different figures, according to the different times of pregnancy; for, when ſhe is young with child, the embryo is always found of a round figure, a little oblong, having the ſpine moderately turned inwards, the thighs folded, and a little raiſed, to which the legs are ſo joined that the heels touch the buttocks; the arms are bending, and the hands placed upon the knees, towards which the head is inclining forwards, ſo that the chin toucheth the breaſt; in which poſture it reſembles one's ſitting to eaſe nature, and ſtooping down with the head to ſee what comes from him. The ſpine of its back is at that time placed towards the mother's, the head uppermoſt, the face forwards, and the feet downwards; and, proportionably to its growth, it extends its members by little and little, which were exactly folded in the firſt month. In this poſture it uſually keeps till the ſeventh or eight months, and then by a natural propenſity and diſpoſition of the upper part of the body, the head is turned downwards toward the inward orifice of the womb, tumbling as it were over its head, ſo that then the feet are uppermoſt, and the face towards the mother's great gut; and this turning of the infant in this manner, with his head downwards, towards the latter end of a woman's reckoning, is ſo ordered by nature, that it may thereby be the better diſpoſed for its paſſage into the world at the time of its mother's labour, which is not then far off; (and indeed ſe-

veral

veral children turn not at all until the very time of birth) for in this poſture all its joints are moſt eaſily extended in coming forth; for by this means the arms and legs cannot hinder its birth, becauſe they cannot be bended againſt the inward orifice of the womb; and the reſt of the body, being very ſupple, paſſeth without any difficulty after the head, which is hard and big, being paſt the birth. 'Tis true, there are divers children that lie in the womb in another poſture, and come to the birth with their feet downwards, eſpecially if there be twins; for then by their different motions they do ſo diſturb one another, that they ſeldom come both in the ſame poſture at the time of labour, but one will come with the head, and another with the feet, or perhaps lie croſs; and ſometimes neither of them will come right. But however the child may be ſituated in the womb, or in whatever poſture it preſents itſelf at the time of birth, if it be not with its head forwards, as I have before deſcribed, it is always againſt nature; and the delivery will occaſion the mother more pain and danger, and require greater care and ſkill from the midwife than when the labour is more natural: of which the following ſcheme will give a great demonſtration, which is the form of a child in the womb ready for the birth, naked and diſrobed of all its tunicles, proper and common.

CHAP. IV.

A Guide for Women in Travail, ſhewing what is to be done when they fall in Labour, in order for their Delivery.

THE end of all that we have been treating of is the bringing forth a child into the world with ſafety both to the mother and the infant, as the whole time of a woman's pregnancy may very well be termed a kind of labour; for, from the time of her conception to the time of her delivery, ſhe labours under many difficulties, is ſubject to many diſtempers, and in continual danger, from one effect or another, till the time of birth comes, and when that comes, the greateſt labour and travail comes along with it, inſomuch, that then all her other labours are forgotten, and that only

only is called the time of her labour; and to deliver her ſafely is the principal buſineſs of the midwife. And to aſſiſt her therein, ſhall be the chief deſign of this chapter. The time of the child's being ready for its birth, when Nature endeavours to caſt it forth is that which is properly the time of a woman's labour; nature then labouring to be eaſed of its burden. And ſince many child-bearing women (eſpecially of their firſt child) are often miſtaken in their reckoning, and ſo when they draw near their time take every pain they meet with for their labour, which often proves prejudicial and troubleſome to them when it is not ſo, I will, in the firſt ſection of this chapter, ſet down ſome ſigns, by which a woman may know when the true time of her labour is come.

SECT. I. *The Signs of the true Time of a Woman's Labour.*

WHEN women with child, eſpecially of their firſt, perceive any extraordinary pains in their belly, they immediately ſend for their midwife, as taking it for their labour, and then if the midwife be not a ſkilful and judicious woman to know the time of her labour, but takes it for granted without further enquiry, (for ſome ſuch there are) and ſo goes about to put her into labour before nature is prepared for it, ſhe may endanger the lives both of mother and child, by breaking the Amnios and Chorion. Theſe pains, which are often miſtaken for labour, are removed by warm cloths laid to the belly, and the application of a clyſter or two, by which thoſe pains that precede a true labour are rather furthered than hindered. There are alſo other pains incident to women in that condition from a flux of the belly, which are eaſily known by the frequent ſtools that follow them.

The ſigns therefore of labour ſome few days before are, that the woman's belly, which before lay high, ſinks down and hinders her from walking ſo eaſily as ſhe uſed to do alſo there flows from the womb ſlimy humours, which nature has appointed to moiſten and ſmooth the paſſage, that its inward orifice may be the more eaſily dilated when there is occaſion; which beginning to open at that time, ſuffers that ſlime to flow away, which proceeds from the glandules, called Proſtata. Theſe are ſigns preceding labour; but when ſhe is preſently falling into labour, the ſigns are, great pains about the region of the reins and loins, which, coming and

reiterating

reiterating by intervals, anſwer to the bottom of the belly by congruous throws, and ſometimes the face is red and inflamed, the blood being much heated by the endeavours a woman makes to bring forth her child; and likewiſe, becauſe during theſe ſtrong throws her reſpiration is intercepted, which cauſes the blood to have recourſe to her face; alſo her privy parts are ſwelled by the infant's head lying in the birth, which, by often thruſting, cauſes thoſe pains to deſcend outwards. She is much ſubject to vomiting, which is a ſign of good labour and ſpeedy delivery, though by ignorant women thought otherwiſe, for good pains are thereby excited and redoubled; which vomiting is occaſioned by the ſympathy there is between the womb and the ſtomach. Alſo when the birth is near, women are troubled with a trembling in the thighs and legs, not with cold, like the beginning of an ague fit, but with the heat of the whole body; tho' it muſt be granted this does not happen always. Alſo if the humours, which then flow from the womb, are diſcoloured with blood, it is that which the midwives call Shows, and is an infallible mark of the birth's being near. And if then the midwife puts up her fingers into the neck of the womb, ſhe will find the inner orifice dilated; at the opening of which, the membranes of the infant containing the waters preſent themſelves, and are ſtrongly forced downwards with each pain ſhe hath; at which time one may perceive them ſometimes to reſiſt, and then again preſs forward the finger, being more or leſs hard and extended, according as the pains are ſtronger or weaker. Theſe membranes, with the waters in them, when they are before the head of the child, which the midwives call the Gathering of the Waters, reſemble, to the touch of the finger, thoſe eggs which have no ſhell, but are covered only with a ſimple membrane. After this, the pains ſtill redoubling, the membranes are broken by a ſtrong impulſion of the waters, which preſently flow away, and then the head of the infant is preſently felt naked, and preſents itſelf at the inward orifice of her womb; when theſe waters come thus away, then the midwife may be aſſured the birth is very near, this being the moſt certain ſign that can be; for the Amnios Alantois being broken, which contained thoſe waters, by the preſſing forward of the birth; the child is no better able to ſubſiſt long in the womb afterwards than a naked

man

man in a heap of ſnow. Now theſe waters if the child comes preſently after them, facilitate the labour, by making the paſſage ſlippery: and therefore let no midwife (as ſome fooliſhly have done) endeavour to force away the water, for Nature knows beſt when the true time of the birth is, and therefore retains the water till that time. But if by accident the water breaks away too long before the birth, then ſuch things as will haſten it may be ſafely admitted; and what thoſe are I ſhall ſhew in another ſection.

Sect. III. *How a Woman ought to be ordered when the Time of her Labour is come.*

WHEN it is known that the true time of her labour is come by the ſigns laid down in the foregoing ſection, of which thoſe that are moſt to be relied on are pains and ſtrong throws in the belly, forcing downwards towards the womb, and a dilation of the inward orifice, which may be perceived by touching it with the finger, and the gathering of the waters before the head of the child, and thruſting down of the membranes which contain them; through which, between the pains, one may in ſome manner with the finger diſcover the part which preſents (as was ſaid before) eſpecially if it be the head of the child, by its roundneſs and hardneſs, I ſay, if theſe things concur, and are evident, the midwife may be ſure it is the time of her labour; and care muſt be taken to get all things ready that are neceſſary to comfort the woman in that time. And the better to help her, be ſure to ſee ſhe be not ſtrait laced: you may alſo give her a pretty ſtrong clyſter or more, if there be occaſion, provided it be done at the beginning, and before the child be too forward, for it will be difficult for her to receive them afterwards. The benefit accruing hereby will be, that they excite the gut to diſcharge itſelf of its excrements, that ſo the rectum being emptied, there may be more ſpace for the dilation of the paſſage; likewiſe to cauſe the pains to bear the more downward, through the endeavours ſhe makes when ſhe is at ſtool; and, in the mean time, all other neceſſary things for her labour ſhould be put in order, both for the midwife and the child. To this end ſome will get a midwife's ſtool, but a pallet bed girted is much the beſt way, placed near the fire, if the ſeaſon ſo re-

quire; which pallet ought to be ſo placed, that there may be eaſy acceſs to it on every ſide, that the woman may be the more readily aſſiſted as there is occaſion.

If the woman abounds with blood, to bleed her a little may not be improper, for thereby ſhe will both breathe the better, and have her breaſts more at liberty, and likewiſe more ſtrength to bear down her pains; and this ſhe may do without danger, becauſe the child being about that time ready to be born, has no more need of the mother's blood for its nouriſhment: Beſides, this evacuation does many times prevent her having a fever after delivery. Alſo before her delivery, if her ſtrength will permit, let her walk up and down her chamber; and that ſhe may have ſtrength ſo to do, it will be neceſſary to give her ſome good ſtrengthening things, ſuch as jelly broth, new-laid eggs, or ſome ſpoonfuls of burnt wine. And let her by all means hold out her pains, bearing them down as much as ſhe can at the time when they take her; and let the midwife from time to time touch the inward orifice with her finger, to know whether the waters are ready to break, and whether the birth will follow ſoon after; let her alſo anoint the woman's privities with emollient oil, hog's greaſe, and freſh butter, if ſhe finds they are hard to be dilated. Let the midwife likewiſe be all the while near the labouring woman, and diligently obſerve her geſtures, complaints, and pains, for by this ſhe may gueſs pretty well how her labour advanceth; becauſe when ſhe changeth her ordinary groans into loud cries, it is a ſign the child is very near the birth; for at that time her pains are greater and more frequent. Let the woman likewiſe by intervals reſt herſelf on the bed to regain her ſtrength, but not too long, eſpecially if ſhe be little, ſhort, and thick; for ſuch women have always worſt labour if they lie long on their beds in their travail: it is better therefore that they walk as much as they can about the chamber, the women ſupporting her under their arms, if it be neceſſary, for by this means the weight of the child cauſeth the inward orifice of the womb to dilate ſooner than in bed; and if her pains be ſtronger and more frequent, her labour will not be near ſo long.

Let not the labouring woman be concerned at thoſe qualms and vomitings which perhaps ſhe may find come upon her, for they will be much for her advantage in the iſſue, however

however uneasy she may be for the time, as they further her throws and pains provoking downwards. But to proceed:

When the waters of the children are ready and gathered, which may be perceived through the membranes to present themselves to the inward orifices, of the bigness of the whole dilation, the midwife ought to let them break of themselves, and not, like some hasty midwives, who being impatient of the woman's long labour, break them, intending thereby to hasten their business, when, instead thereof, they retard it; for by the too hasty breaking of these waters (which Nature designed to cause the infant to slide forth the more easy), the passage remains dry, by which means the pains and throws of the labouring woman are less efficacious to bring forth the infant than they would otherwise have been. It is therefore much the better way to let the waters break of themselves; after which the midwife may with ease feel the child bare by that which first presents, and thereby discern whether it comes right, that is, with the head foremost, for that's the most proper and natural way of its birth; if the head comes right, she will find it round, big, hard, and equal; but if it be in any other part, she will feel it unequal, rugged, and soft or hard, according to the nature of the part it is. And this being the true time when the woman ought to deliver, if nature be not wanting to perform its office, therefore, when the midwife finds the birth thus coming forward, let her hasten to assist and deliver it, for it ordinarily happens soon after if it be natural.

But if it happens, as sometimes it may, that the waters break away too long before the birth, in such a case those things that hasten nature may be safely admitted; to which purpose, let her make use of penny royal, dittany, juniper berries, red coral, bettony, and featherfew, boiled in white wine, and a draught of it drank; or it would be much better to take the juice of it when it is in its prime, which is in May; and having clarified it, let them make it into a syrup, with double its weight of sugar, and keep it by them all the year, to use when occasion calls for it. Mugwort, used in the same manner, is also good in this case. Also a dram of cinnamon powder given inwardly profits much in this case; and so does tansey bruised and applied to the privities, or an oil of it so made and used as you were taught before. The

ſtones Ætites held to the privities is of extraordinary virtue, and inſtantly draws away both child and after burden; but great care muſt be taken to remove it preſently, or it will draw forth the womb and all; for ſuch is the magnetic virtue of this ſtone, that both child and womb follow it as readily as iron doth the load-ſtone, or as the load-ſtone the North ſtar.

There are many other things that phyſicians affirm are good in this caſe; among which are, an aſs's or an horſe's hoof hung near the privities; a piece of red coral hung near the ſaid place: a load-ſtone helps much, held in the woman's left hand, or the ſkin which a ſnake hath cut off, girt about the middle next the ſkin. Theſe things are mentioned by Mizaldus; but ſetting thoſe things aſide, as not ſo certain, notwithſtanding Mizaldus quotes them, the following preſcriptions are very good to give ſpeedy deliverance to women in travail.

1. A decoction of white wine made in ſavory, and drunk.

2. Take wild tanſey, or ſilver-weed, bruiſe it, and apply it to the woman's noſtrils.

3. Take date ſtones, and beat them to powder, and let her take half a dram of them in white wine at a time.

4. Take parſley, and bruiſe it, and preſs out the juice, and dip a linen cloth in it, and put it up ſo dipped into the mouth of the womb, it will preſently cauſe the child to come away though it be dead, and will bring away the after-burden. Alſo the juice of parſley is a thing of ſo great virtue (eſpecially ſtone parſley), that being drank by a woman with child, it cleanſeth not only the womb, but alſo the child in the womb, of all groſs humours.

5. A ſcruple of Caſtorum in powder, in any convenient liquor, is very good to be taken in ſuch a caſe; and ſo alſo is two or three drops of ſpirit of Caſtorum in any convenient liquor; alſo eight or nine drops of ſpirits of myrrh, given in any convenient liquor, gives ſpeedy deliverance.

6. Give a woman in ſuch a caſe another woman's milk to drink, it will cauſe ſpeedy delivery, and almoſt without any pain

7. The juice of leeks, being drank with warm water, hath a mighty operation to cauſe ſpeedy delivery.

8. Take poiny ſeeds and beat them into powder, and mix the powder with oil, with which oil anoint the loins and privities

privities of the woman with child; it gives her deliverance very ſpeedily, and with leſs pain than can be imagined.

9. Take a ſwallow's neſt, and diſſolve it in water, ſtrain it, and drink it warm; it gives delivery with great ſpeed and much eaſe.

Note this alſo in general, That all things that move the terms are good for making the delivery eaſy; ſuch as myrrh, white amber in white wine, or lilly-water, two ſcruples or a dram; or caſſia lignea, dittany, each a dram, cinnamon half a dram, ſaffron a ſcruple, give a dram; or take borax mineral as a dram, caſſia lignea a ſcruple, ſaffron ſix grains, and give it in ſack; or take caſſia lignea, a dram, dittany amber, of each half a dram; cinnamon, borax, of each a dram and a half, ſaffron a ſcruple, and give her half a dram: or give her ſome drops of oil of hazel in convenient liquor; or two or three drops of oil of cinnamon in vervain water. Some prepare the Secundine thus; Take the navel-ſtring and dry it in an oven; take two drams of the powder, cinnamon a dram, ſaffron half a ſcruple, with juice of ſavin make torches; give two drams; or waſh the Secundine in wine, and bake it in a pot; then waſh it in indive water and wine; take half a dram of it; long pepper, galangal, of each half a dram; plantain and endive ſeed, of each a dram and a half; lavendar ſeed, four ſcruples: make a powder; or take laudanum two drams, ſtorax, catamite, benzion, of each half a dram; muſk, ambergreaſe, each ſix grains; make a powder, or torches for a fume. Or uſe peſſaries to provoke the birth; take galbanum diſſolved in vinegar, an ounce: myrrh two drams, ſaffron a dram; with oil of oats make a peſſary.

An Ointment for the Navel.

Take oil of keir two ounces, juice of ſavin an ounce, of leeks and mercury, each half an ounce; boil them to the conſumption of the juice; and galbanum diſſolved in vinegar, half an ounce, myrrh two drams, ſtorax liquid a dram; round birthwort, ſowbread, cinnamon, ſaffron, a dram; with wax make an ointment, and apply it.

If the birth be retarded through the weakneſs of the mother, refreſh her with applying wine and ſoap to the noſe, Confect Alkermas, Diamarg.

Theſe things may be applied to help nature in the delivery when the child comes to the birth the righ way, and yet

the birth is retarded; but if ſhe finds the child comes the wrong way, and ſhe is not able to deliver the woman as ſhe ought to be, by helping nature and ſaving both mother and child, (for it is not enough to lay a woman, if it might be done by another with more ſafety and eaſe, and leſs hazard both to woman and child) then let her ſend ſpeedily for better and more able help; and not as I once knew a midwife, when a woman ſhe was to deliver had hard labour, rather than a man-midwife ſhould be ſent for, would undertake to deliver the woman herſelf, (though told by others that it was a man's buſineſs) and in her attempting it brought away the child, but left the head of the infant in the mother's womb; and had not a man midwife been preſently ſent for, the mother had loſt her life as well as the child: ſuch perſons may rather be termed butchers than midwives. But ſuppoſing the woman's labour to be natural, I will next ſhew what the midwife ought to do in order to her delivery.

CHAP. V.

Of natural Labour; what it is, and what the Midwife is to do in ſuch a Labour.

SECT. I. *What natural Labour is.*

THERE are four things to denominate a woman's labour natural; the firſt is, that it be at the full time; for if a woman comes before her time it cannot properly be termed natural labour, neither will it be ſo eaſy as if ſhe had completed her nine months. The ſecond thing is that it be ſpeedy, and without an ill accident; for when the time of the birth is come, nature is not dilatory in the bringing of it forth, without ſome ill accident intervene, which renders it unnatural. The third is, that the child be alive; for all will grant, that the being delivered of a dead child is very unnatural. The fourth thing requiſite to a natural birth is, that the child come right: for if the poſition of the child in the womb be contrary to what is natural, and the event proves it ſo too often, making that which ſhould be a time of life the death both of the mother and the child.

Having thus told you what I mean by natural labour, I ſhall

ſhall next ſhew how the midwife is to proceed herein, in order to the woman's delivery. When all the foregoing requiſites concur, and after the waters be broke of themſelves, let the labouring woman be conducted to a pallet bed, provided near the fire for that purpoſe, as has already been ſaid, and let there rather be a quilt laid upon the pallet bedſtead than a feather-bed, having thereon linen and cloths in many folds, with ſuch other things as are neceſſary, and that may be changed according to the exigence requiring it, ſo that the woman may not be incommoded with the blood, waters, and other filth which is voided in labour. The bed ought ſo to be ordered, that the woman, being ready to be delivered, ſhould lie on her back upon it, having her body in a convenient poſture; that is, her head and breaſt a little raiſed, ſo that ſhe be between lying and ſitting; for being ſo placed, ſhe is beſt capable of breathing, and likewiſe will have more ſtrength to bear her pains, than if ſhe lay otherwiſe, or ſunk down in her bed. Being ſo placed, ſhe muſt ſpread her thighs abroad, folding her legs a little towards her buttocks, ſomewhat raiſed by a ſmall pillow underneath, to the end her rump ſhould have more liberty to retire back: and let her feet be ſtaid againſt ſome firm things: beſides this, let her take hold of ſome of the good women attending her with her hands, that ſhe may the better ſtay herſelf during her pains. She being thus placed near the ſide of her bed, having her midwife by, the better to aſſiſt upon occaſion, let her take courage, and help her pains the beſt ſhe can, bearing them down when they take her, which ſhe muſt do by holding in her breath, and forcing herſelf as much as poſſible, in like manner as when ſhe goes to ſtool: for, by ſuch ſtraining, the diaphragma, or midriff, being ſtrongly thruſt downwards, neceſſarily forces down the womb, and the child in it. In the mean time let the midwife endeavour to comfort her all ſhe can, exhorting her to bear her labour courageouſly, telling her it will be quickly over, and that there is no fear but ſhe will have a ſpeedy delivery. Let the midwife alſo, having no rings on her hands, anoint it with oil or freſh butter, and therewith dilate gently the inward orifice of the womb, putting her finger ends into the entry thereof, and then ſtretch them one from the other, when her pains take her; by this means endeavouring to help forward the child, and thruſting by little and little the ſides of the orifice towards

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wards the hinder part of the child's head, anointing the parts alſo with freſh butter, if it be neceſſary.

When the head of the infant is ſomewhat advanced into this inward orifice, the midwife's phraſe is, "It is crowned," becauſe it girds and ſurrounds it juſt as a crown; but when it is ſo far that the extremities begin to appear without the privy parts, then ſay they, "The child is in the paſſage;" and at this time the woman feels herſelf as it were ſcratched, or pricked with pins, and is ready to imagine that the midwife hurts her, when it is occaſioned by the violent diſtention of thoſe parts, and the laceration which at ſometimes the bigneſs of the child's head cauſeth there. When things are in this poſture, let the midwife ſeat herſelf conveniently to receive the child, which will now come quickly, and with her finger ends, (which ſhe muſt be ſure to keep cloſe paired) let her endeavour to thruſt the crowning of the womb (of which I have ſpoken before) back over the head of the child. And as ſoon as it is advanced as far as the ears, or thereabouts, let her take hold of the two ſides with her two hands, that when a good pain comes ſhe may quickly draw forth the child, taking care that the navel-ſtring be not then entangled about the neck, or any other part, as ſometimes it is, leſt thereby the after burden be pulled with violence, and perhaps the womb alſo, to which it is faſtened; and ſo either cauſe her to flood, or elſe break the ſtrings, both which are of bad conſequence to the woman, whoſe delivery may thereby be rendered the more difficult. It muſt alſo be carefully obſerved that the head be not drawn forth ſtraight, but ſhaking it a little from one ſide to the other, that the ſhoulders may ſooner and eaſier take their place immediately after it be paſt, without loſing any time, leſt the head being paſt, the child be ſtopt there by the largeneſs of the ſhoulders, and ſo come in danger of being ſuffocated and ſtrangled in the paſſage, as it ſometimes happens for the want of care therein. But as ſoon as the head be born, if there be need, ſhe may ſlide in her fingers under the armpits, and the reſt of the body will follow without difficulty.

As ſoon as the midwife hath in this manner drawn forth the child, let her put it on one ſide, leſt the blood and water which follow immediately ſhould do it any injury, by running into its mouth and noſe, as it would do if it lay on its back, and

and ſo endanger the choaking it The child being thus born, the next thing requiſite is to bring away the after burden; but before that, let the midwife be very careful to examine whether there be no more children in the womb; for ſometimes a woman may have twins that expected it not; which the midwife may eaſily know by the continuance of the pains after the child is born, and the bigneſs of the mother's belly. But the midwife may be more ſure of it if ſhe puts her hand up to the entry of the womb, and finds there another water gathering, and a child in it preſenting to the paſſage; and if ſhe finds ſo, ſhe muſt have a care of going about to fetch the after-birth, till the woman be delivered of all the children ſhe is pregnant with. Wherefore the firſt ſtring muſt be cut, being firſt tied with a thread three or four double, and faſten the other end with a ſtring to the woman's thigh, to prevent the inconvenience it may cauſe by hanging between her thighs; and then removing the child already born, ſhe muſt take care to deliver her of the reſt, whether more or leſs, obſerving all the ſame circumſtance as were to the firſt; after which it will be neceſſary to fetch away the after-birth or births. But of that I ſhall treat in another ſection; and firſt ſhow what is to be done to the new-born infant.

SECT. II. *Of the cutting of the Child's Navel ſtring.*

THOUGH this is by many accounted but a trifle, yet great care is to be taken about it; and it ſhews none of the leaſt art and ſkill of a midwife to do it as it ſhould be: and that it may be ſo done, the midwife ought to obſerve, 1. The time. 2. The place. 3. The manner. 4. The event.

The time is as ſoon as ever the infant comes out of the womb, whether it brings part of the after-birth with it or not; for ſometimes the child brings into the world a piece of the Amnios upon its head, and is what the good women calls the caul, and ignorantly attribute ſome extraordinary virtue to the child that is ſo born; but this opinion is only the effect of their ignorance; for when a child is born with ſuch a crown (as ſome call it) upon its brows, it generally betokens weakneſs), and denotes a ſhort life.—But to the matter in hand. As ſoon as the child is come into the world,

world, conſider whether it be weak or ſtrong; and if it be weak, let the midwife gently put back part of the vital and natural blood into the body of the child by its navel; for that recruits a weak child, (the vital and natural ſpirits being communicated by the mother to the child by its navel-ſtring) but if the child be ſtrong, the operation is needleſs. Only let me adviſe you, that many children that are born ſeemingly dead may be ſoon brought to life again, if you ſqueeze ſix or ſeven drops of blood out of that part of the navel-ſtring which is cut off, and give it to the child inwardly.

As to the place in which it ſhould be cut, that is, whether it ſhould be cut long or ſhort, it is that which authors can ſcarce agree in, and which many midwives quarrel about; ſome preſcribing it to be cut at four fingers breadth, which is at the beſt but an uncertain rule, unleſs all fingers were one ſize. It is a received opinion, that the parts adapted to generation are contracted or dilated according to the cutting of the navel ſtring; and that is the reaſon that midwives are generally ſo kind to their own ſex, that they leave a longer part of the navel ſtring of a male than of a female, becauſe they would have the males well provided for the encounter of Venus; and the reaſon they give why they cut that of females ſhorter is, becauſe they believe it makes them modeſt, and their privities narrower, which makes them more acceptable to their huſbands. Mizaldus was not altogether of the opinion of theſe midwives, and therefore he orders the navel-ſtring to be cut long both in male and female children; for which he gives this reaſon, that the inſtrument of generation follows the proportion of it, and therefore if it be cut too ſhort in a female it will be a hindrance to her having children. I will not go about to contradict this opinion of Mizaldus, that experience has made good. The one is, that if the navel ſtring of a child after it is cut be ſuffered to touch the ground, the child will never hold its water, neither ſleeping nor waking, but will be ſubject to an involuntary making of water all its lifetime. The other is, that a piece of the child's navel ſtring carried about one, ſo that it touch his ſkin, defends him that wears it from the falling-ſickneſs and convulſions.

As to the manner how it muſt be cut: Let the midwife take a brown thread four or five times double, of an ell long, or thereabouts, tied with a ſingle knot at each of the ends, to prevent

prevent their entangling; and with this thread ſo accommodated (which the midwife muſt have in readineſs before the woman's labour, as alſo a good pair of ſciſſars, that ſo no time may be loſt) let her tie the ſtring within an inch of the belly with a double knot, and, turning about the ends of the thread, let her tie two more on the other ſide of the ſtring, reiterating it again, if it be neceſſary; then let her cut off the navel another inch below the ligature, towards the afterbirth, ſo that there only remains but two inches of the ſtring, in the midſt of which will be the knot we ſpeak of, which muſt be ſo ſtrait knit as not to ſuffer a drop of blood to ſqueeze out of the veſſels; but care muſt be taken not to knit it ſo ſtrait as to cut it in two, and therefore the thread muſt be pretty thick, and pretty ſtrait knit, it being better too ſtrait than too looſe; for ſome children have miſerably loſt their lives, with all their blood, before it was diſcovered, becauſe the navel ſtring was not well tied. Therefore great care muſt be taken that no blood ſqueeze thro', for if there do, a new knot muſt be made with the reſt of the ſtring You need not fear to bind the navel-ſtring very hard, becauſe they are void of ſenſe, and that part of it which you leave on falls off of its own accord in a very few days, accordingly ſix or ſeven, and ſometimes ſooner; but rarely tarries longer then the eighth or ninth. When you have thus cut the navel-ſtring, then take care the piece that falls off touch not the ground, for the reaſon I told you Mizaldus gave, which experience has juſtified.

As to the laſt thing I mentioned, which is the event or conſequence, or what follows cutting of the navel ſtring: As ſoon as the navel-ſtring is cut off, apply a little cotton or lint to the place to keep it warm, leſt the cold enter into the body of the child, which it will moſt certainly do if you have not bound it hard enough. If the lint or cotton you apply to it be dipt in oil of roſes, it will be the better; and then put another ſmall rag three or four times double upon the belly. Upon the top of all put another ſmall bolſter, and then ſwathe it with a linen ſwathe four fingers broad, to keep it ſteady, leſt by toiling too much, or by being continually ſtirred from ſide to ſide, it comes to fall off before the navel-ſtring, which you left remaining, is fallen off. It is the uſual cuſtom of midwives to put a piece of burnt rag to it, which we commonly call tinder; but I would rather adviſe

vife them to put a little of armoniac to it, becauſe of its drying quality. But this ſhall ſuffice to be ſpoken as to the cutting of the navel-ſtring.

SECT. III. *How to bring away the After burden.*

A WOMAN cannot be ſaid fairly to be delivered, though the child be born, till the after-burden be alſo taken from her; herein differing from moſt animals, who, when they have brought forth their young, caſt forth nothing elſe but ſome waters, and the membranes which contained them. But women have an after-labour, which ſometimes proves more dangerous than the firſt: and how to bring it ſafely away, without prejudice to her, ſhall be my buſineſs to ſhew in this ſection.

As ſoon as the child is born, before the midwife either ties or cuts the navel ſtring, leſt the womb ſhould cloſe, let her take the ſtring and wind it once or twice about one or two of the fingers of her left hand joined together, the better to hold it, with which ſhe may draw it moderately, and with the right hand ſhe may only take a ſingle hold of it above the left near the privities, drawing likewiſe with that very gently, reſting the while, the fore-finger of the ſame hand extended and ſtretched forth along the ſtring towards the entry of the vagina; always obſerving, for the more facility, to draw it from the ſide where the burden cleaves leaſt, for in ſo doing the reſt will ſeparate the better; and ſpecial care muſt be taken that it be not drawn forth with too much violence, leſt by breaking the ſtring near the burden, the midwife will be obliged to put the whole hand into the womb to deliver the woman; and ſhe had need be a very ſkilful perſon that undertakes it, leſt the womb, to which this burden is ſometimes very ſtrongly faſtened, be not drawn away with it, as it has ſometimes happened. It is therefore beſt to uſe ſuch remedies as may aſſiſt nature. And here take notice, that what brings away the birth will alſo bring away the after birth. And therefore, for the effecting this work, I will lay down the following rules:

1. Uſe the ſame means in bringing away the after-birth that you made uſe of to bring away the birth; for the ſame care and circumſpection is needful now that was then.

2. Conſider the labouring woman cannot but be much ſpent by

by what ſhe has already undergone in bringing forth the infant; and therefore be ſure to take care to give her ſomething to comfort her. And in this caſe good jelly broths, alſo a little wine and toaſt in it, and other comforting things, will be very neceſſary.

3. A little white hellebore in powder, to make her ſneeze, is in this caſe very proper.

4. Tanſey and the ſtone Ætites, applied as before directed, is alſo of good uſe in this caſe.

5. If you take the herb vervain, and either boil it in wine, or make a ſyrup with the juice of it, which you may do by adding to it double its weight of ſugar (having clarified the juice before you boil it) and a ſpoonful or two of that given to the woman is very efficacious to bring away the ſecundine; and featherfew and mugwort have the ſame operation taken as the former.

6. Alexander boiled in wine, and the wine drank; alſo ſweet cervile, ſweet cicely, angelica roots, and muſter-wort, are excellent remedies in this caſe.

7. Or if theſe fail, the ſmoke of marygolds received up a woman's privities by a funnel have been known to bring away the after-birth, even when the midwife let go her hold.

8 Which is all I ſhall add in this caſe. Boil mugwort in water till it be very ſoft; then take it out, and apply it in manner of a poultice to the navel of a labouring woman, and it inſtantly brings away the birth and after birth: But ſpecial care muſt be taken to remove it as ſoon as they come away, leſt by its longer tarrying it ſhould draw away the womb alſo. But this much ſhall ſuffice to be ſpoken of bringing away the after-burden in all natural labours.

SECT. IV. *Of laborious and difficult Labours, and how the Midwife is to proceed therein.*

TO proceed in this ſection the more regularly, it will be neceſſary to acquaint the reader that there are three ſorts of bad labours, all painful and difficult, but not all properly unnatural. It will be neceſſary therefore to diſtinguiſh theſe.

The firſt of theſe bad labours is that wherein the mother

and child ſuffer very much by extreme pain and difficulty even thongh the child come right; and this is diſtinguiſhably called laborious labour.

The ſecond is that which is difficult, and differs not much from the former, except that, beſides thoſe extraordinary pains, it is generally attended with ſome unhappy accident, which, by retarding the birth, cauſes the difficulty; and theſe difficulties being removed, accelerates the birth, and haſtens the delivery.

Some have aſked what the reaſon is that women bring forth their children with ſo much pain? I anſwer, the ſenſe of feeling is diſtributed to the whole body by the nerves, and the mouth of the womb being ſo ſtrait that it muſt of neceſſity be dilated at the time of the woman's delivery, the dilating thereof ſtretches the nerves, and from thence comes the pain. And therefore the reaſon why ſome women have more pain in their labour than others, proceeds from their having the mouth of the matrix more full of nerves than others, as ſkilful anatomiſts do eaſily diſcover.

But to proceed: The beſt way to remove theſe difficulties that occaſion ſuch hard pains and labour as I am here to treat of, is to ſhew from whence they proceed; for the cauſe of any diſtemper being known is as much as half the cure. Now the difficulty of labour proceeds either from the mother, or child, or both.

From the mother, by reaſon of the indiſpoſition of her body, or may be from ſome particular part only, and chiefly the womb, as when the woman is weak, and the mother is not active to expel its burden, or from weakneſs or diſeaſe, or want of ſpirits; or it may be from ſome ſtrong paſſion of the mind with which ſhe was before poſſeſſed; it may be alſo becauſe ſhe may be too young, and ſo may have the paſſages too ſtrait; or too old, and then, if it be their firſt child, becauſe her parts are too dry and too hard, and cannot be ſo eaſily dilated, as happens alſo to them which are too lean. Likewiſe thoſe who are either ſmall, ſhort, or deformed, as crooked women, who have not a breath ſtrong enough to help her pains, and to bear them down; and perſons that are crooked having ſometimes the bones of the paſſage not well ſhaped: the cholic alſo hinders labour, by preventing the true pains; and all great and acute pains, as when the woman is taken with a violent fever, a great flooding, frequent

quent convulſions, bloody flux, or any other great diſtemper.

Alſo excrements retained cauſe much difficulty, and ſo does a ſtone in the bladder; or when the bladder is full of urine, without being able to avoid it; or when the woman is troubled with great and painful biles. It may alſo be from the paſſages when the membranes are thick, the orifice too ſtrait, and the neck of the womb is not ſufficiently open, the paſſages are preſſed and ſtrained by tumours in the adjacent parts, or when the bones are too firm, and will not open, which very much endangers mother and child; or when the paſſes are not ſlippery, by reaſon of the waters having broke ſo ſoon, or of the membranes being too thin. The womb may be alſo out of order with reſpect to its bad ſituation, or conformation, having its neck too ſtrait, hard, and callous, which may eaſily be ſo naturally, or may come by accident, being many times cauſed by a tumour, a poſthume, ulcer, or ſuperfluous fleſh.

As to hard labour occaſioned by the child, it is when the child happens to ſtick to a mole, or when it is ſo weak it cannot break the membranes, or if it be too big all over, or in the head only, or if the navel veſſels are twiſted about its neck, when the belly is hydropical, or when it is monſtrous, having two heads, or being joined to another child; alſo when the child is dead, or ſo weak that it can contribute nothing to its birth, likewiſe when it comes wrong, or when there are two or more. And to all theſe various difficulties there is oftentimes one more, and that is the ignorance of the midwife; for want of underſtanding her buſineſs hinders nature in her work inſtead of helping her.

Having thus looked into the cauſes of hard labour, I will now ſhew the induſtrious midwife how ſhe may miniſter ſome relief to the labouring woman under theſe difficult circumſtances. But it will require underſtanding and judgment in the midwife, when ſhe finds a woman in difficult labour, to know the particular obſtruction, or cauſe thereof, that ſo a ſuitable remedy may be applied; as for inſtance, when it happens by the mother's being too young and too ſtrait, ſhe muſt be gently treated, and the paſſages anointed with oil, hog's lard, or freſh butter, to relax and dilate them the eaſier, leſt there ſhould happen a rupture of any part when the child is born; for ſometimes the peritonæum

breaks with the ſkin from the privities to the fundament. But if a woman be in years with her firſt child, let her lower parts be anointed to mollify the inward orifice, which in ſuch a caſe being more hard and callous, does not eaſily yield to the diſtention of labour, which is the true cauſe why ſuch women are longer in labour, and alſo why their children, being forced againſt the inward orifice of the womb, (which, as I have ſaid, is a little callous) are born with great bumps and bruiſes on their heads. Thoſe women that are very ſmall and miſhapen ſhould not be put to bed, at leaſt till their waters are broke, but rather kept upright, and aſſiſted to walk about the chamber, by being ſupported under her arms; for by that means they will breathe more freely, and mend their pains better than on the bed, becauſe there they lie all on a heap. As for thoſe that are very lean, and have hard labour from that cauſe, let them moiſten the parts with oils and ointments, to make them more ſmooth and ſlippery, that the head of the infant and the womb be not ſo compaſſed and bruiſed by the hardneſs of the mother's bones which form the paſſage. If the cauſe be weakneſs, ſhe ought to be ſtrengthened, the better to ſupport her pains; to which end give her good jelly-broths, and a little wine with a toaſt in it. If ſhe fears her pains, let her be comforted, aſſuring her that ſhe will not endure many more, but be delivered in a little time. But if her pains be ſlow and ſmall, or none at all, they muſt be provoked by frequent and pretty ſtrong clyſters, that ſo they may be excited thereby; after which, let her walk about the chamber, that ſo the weight of the child may help them forward. But if ſhe flood, or have convulſions, ſhe muſt then be helped by a ſpeedy delivery; the operation whereof I ſhall relate in this ſection of unnatural labours. If ſhe be coſtive, let her uſe clyſters, which may alſo help to diſpel the cholic, at thoſe times very injurious, becauſe attended with uſeleſs pains, and becauſe ſuch bear not downward, and ſo help not to forward the birth. If ſhe find an obſtruction or ſtoppage in the urine, by reaſon the womb bears too much on the bladder, let her lift up her belly a little with her hand, and try if by that ſhe receives any benefit; if ſhe finds ſhe does not, it will be neceſſary to introduce a catheter into her bladder, and thereby draw forth her urine. If the difficulty be from the ill poſture of a woman, let her be placed otherwiſe, in a poſture

poſture more ſuitable and convenient for her; alſo if it proceed from the indiſpoſitions of the womb, as from its oblique ſituation, &c. it muſt be remedied as well as can be by the placing of her body accordingly; or if it be a vicious conformation, having the neck too hard, too callous, and too ſtrait, it muſt be anointed with oils and ointments, as before directed. If the membranes be ſo ſtrong as that the waters don't break in due time, they may be broken with the fingers, if the midwife be firſt well aſſured that the child is come forward into the paſſage, and ready to follow preſently after, or elſe by the breaking of the waters too ſoon, the child may be in danger of remaining dry a long time; to ſupply which defect you may moiſten the parts with fomentations, decoctions, and emollient oils; which yet is not half ſo well as when nature does the work in her own time, with the ordinary ſlime and waters, which do beſt when they come in their own proper time and place. But theſe membranes do ſometimes preſs forth with the waters three or four fingers breadth out of the body before the child, reſembling a bladder full of water; but there is then no great danger to break them, if they be not already broken; for when the caſe is ſo, the child is always in readineſs to follow, being in the paſſage; but let the midwife be very careful not to pull it with her hand, leſt the after-burden be thereby looſened before its time, for it adheres thereto very ſtrongly. If the navel-ſtring happens to come firſt, it muſt preſently be put up again, and kept too if poſſible, or otherwiſe the woman muſt immediately be delivered. But if the after burden ſhould come firſt, it muſt not be put up again by any means; for the infant having no further occaſion for it, it would be but an obſtacle if it were put up; in this caſe it muſt be cut off, having tied the navel-ſtring, and afterwards draw forth the child with all the ſpeed that may be, leſt it be ſuffocated.

SECT. V. *Of Women labouring with a dead Child.*

WHEN the difficulty of labour ariſes from a dead child it is a caſe of great danger to the mother, and great care ought to be taken therein; but before any thing be done, the midwife ought to be well aſſured the child is dead indeed, which may be known by theſe ſigns.

1. The breaſt ſuddenly ſlacks, or falls flat, or bags down.

2. A great coldneſs poſſeſſes the belly of the mother, eſpecially about the navel.

3. Her urine is thick, a filthy ſtinking ſetling at the bottom.

4. No motion of the child can be perceiyed; for the trial whereof, let the midwife put her hand in warm water, and lay it upon her belly; for that, if it be alive, will make it ſtir.

5. She is very ſubject to dream of dead men, and be affrighted therewith.

6. She has extravagant longings to eat ſuch things as are againſt nature.

7. Her breath ſtinks, though not uſed ſo to do.

8. When ſhe turns herſelf in her bed, or riſes up, the child ſways that way like a lump of lead.

But theſe things carefully obſerved, the midwife may make a judgment whether the child be alive or dead; eſpecially if the child bearing woman takes the following preſcription:

"Take half a pint of white-wine and burn it, and add thereto half an ounce of cinnamon, but no other ſpice whatever;" and when ſhe has drank it, if her travailing pains come upon her, the child is certainly dead; but if not, the child may poſſibly be either weak or ſick, but not dead; and this, which will bring her pains upon her if it be dead, will refreſh the child, and give her eaſe, if it be living; for cinnamon refreſheth and ſtrengtheneth the child in the womb.

Now, if upon trial it be found the child be dead, let the mother do all ſhe can to forward her delivery, becauſe a dead child can be no ways helpful therein. It will be neceſſary therefore that ſhe take ſome comfortable things to prevent her fainting, by reaſon of thoſe putrid vapours aſcending from the dead child. And in order to her delivery, let her take the following herbs boiled in white-wine, (or at leaſt as many of them as you can get) viz. "Dittany, bettony, penny-royal, ſage, featherfew, centony, ivy leaves and berries." Let her alſo take ſweet baſil in powder, half a dram at a time, in white-wine. Let her privities be alſo anointed with the juice of garden-tanſy. Or if you take the tanſy in the ſummer, when it can be moſt plentifully had, and

before

before it runs up to the flower, and having bruiſed it well, boil it in oil till the juce of it be conſumed. If you ſet it in the ſun, after you have mixed it with oil before, will be more effectual. This an induſtrious midwife, who would be prepared againſt all events, ought to have always by her. As to the manner of her delivery, the ſame methods muſt be uſed as are mentioned in the ſection of natural labour. And here I cannot but commend again the ſtone Ætites, held near the privities, whoſe magnetic virtue renders it exceedingly neceſſary on this occaſion, for it draws the child any way, with the ſame facility as the load-ſtone draws iron.

Let the midwife alſo make a ſtrong decoction of hyſſop with water, and let the woman drink it very hot, and it will in a little time bring away the dead child.

If as ſoon as ſhe is delivered of the dead child, you are in doubt that the part of the after-birth be left behind in her body, (for in ſuch caſes as theſe many times it is rotten, and comes away by piece-meal) let her continue drinking the ſame decoction till her body is cleanſed.

A decoction made of the herb muſter-wort, uſed as you did the decoction of hyſſop, works the ſame effects. Let the midwife alſo take roots of Poliodum, and ſtamp them very well; warm them a little, and bend them on the ſides of her feet, and it will ſoon bring away the child either alive or dead.

The following medicines likewiſe are ſuch as ſtir up the expulſive faculty: but in this caſe they muſt be made ſtronger, becauſe the motion of the child ceaſeth.

Take ſavin, round birthwort, troches of myrrh, aſaram roots, cinnamon half an ounce, ſaffron a ſcruple, give a dram with ſavin water. Or,

Take borax, ſavin, dittany, each an ounce, myrrh, aſaram roots, cinnamon, ſaffron, each half a dram, make a powder, give a dram.

But ſhe may purge firſt, and then put in an emollient birth, anointing her round about the womb with oil of lilies, ſweet almonds, chammomile, hen and gooſe greaſe. Alſo foment to get out the child with a decoction of mercury, orris, wild cucumbers, fœchus, broom flowers. Then anoint the privities and loins with ointment of ſowbread. Or,

Take celiquintida, argaric, birthwort, each a dram; make a powder, add ammoniacum diſſolved in wine, ox gall,

each

each two drams, with oil of keir make an ointment. Or this peſſary—

Take birthwort, orris, black helebore, coliquintida, myrrh, each a dram powdered, Ammoniacum diſſolved in wine, ox gall, each two drams. Or make a fume with aſſes hoofs burnt, or gallianum, or caſtor, and let it be taken in with a funnel.

To take away pains and ſtrengthen the parts, foment with the decoction of mugwort, mallows, roſemary, with wood ſlyrtle, St John's wort, each half an ounce, ſpermaceti two drams, deer's ſuet an ounce, with wax make an ointment. Or,

Take wax four ounces, ſpermaceti an ounce, melt them, dip flax therein, and lay it all over her belly.

If none of theſe things will do, the laſt remedy is to uſe ſurgery, and then the midwife ought without delay to ſend for an expert and able man midwife, to deliver her by manual operation; of which I ſhall treat more at large in the next chapter.

CHAP. VI.

IN ſhewing the duty of a midwife, when the child-bearing woman's labour is unnatural, it will be requiſite to ſhew in the firſt place what I mean by unnatural labour; for, for women to bring forth children in pain and ſorrow is natural and common to all. Therefore that which I call unnatural, is when the child comes to the birth in a contrary poſture to that which nature ordained, and in which the generality of children come into the world. Now as truth is both one, but error dilates itſelf into infinite variety. ſo it is in this caſe; there is but one proper right and natural way or poſture in which children come to the birth, but there are as many wrong and unnatural ways of birth as there are different poſtures of children when they come to be born.

The right and natural birth is when the child comes with its head firſt, and yet even this is too ſhort a definition of a natural birth; for if any part of the head but the crown comes firſt, ſo that the body follows not in a ſtrait line, 'tis a wrong and difficult birth, even though the head come firſt: therefore if the child comes with its feet, or with the ſide

acroſs,

acroſs, it is quite contrary to nature, or to ſpeak more plainly, that which I call unnatural; now there are four general ways a child may come wrong: the firſt is, when any of the fore parts of the body firſt preſent themſelves. Secondly, when by an unhappy tranſpoſition any of the hinder-parts firſt preſent themſelves. Thirdly, when either of the ſides; or, fourthly, the feet preſent themſelves firſt: to theſe four, all the particular and different wrong poſtures that a child can preſent itſelf in, for the birth may be reduced; and therefore I ſhall confine myſelf herein, to treat only of theſe four more generally wrong.

SECT. II. *How to deliver a Woman of a dead Child by manual Operation.*

THE laſt ſection of the laſt chapter was about the delivering of a woman of a dead child, wherein ſeveral things were directed to be applied in order to facilitate the delivery; but when all theſe fail, a manual operation is abſolutely neceſſary. In order to which, let the operator acquaint the woman with the abſolute neceſſity there is of ſuch an operation; and that as the child has already loſt its life, there is no other way left for the ſaving of her's: let him alſo tell her, for her encouragement, that he doubts not that with the divine bleſſing to deliver her ſafely, and that the pain ariſing thereby will not be ſo great as the fears; and then let him endeavour to ſtir up the woman's pains, by giving her ſome ſharp clyſter, to excite her throws to bear down and bring forth the child; and if this prevail not, let him proceed with his manual operation.

Firſt, therefore, let her be placed acroſs the bed that he may operate the eaſier, and let her lie on her back, with her hips a little higher than her head, or at leaſt the body equally placed, when it is neceſſary to put back or turn the infant to give it a better poſture: being thus ſituated, ſhe muſt fold her legs ſo as her heels be towards her buttocks and her thighs ſpread, and held ſo by a couple of ſtrong perſons; there muſt be others alſo to ſupport her under her arms, that the body may not ſlide down when the child is drawn forth, for which ſometimes a great ſtrength is required; let the ſheets and blankets cover her thighs for decency's ſake, and

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with reſpect to the aſſiſtance, and alſo to prevent her catching cold; the operator herein governing himſelf as well with reſpect to his convenience, and the facility and ſurety of the operation, as to the other things. Then let him anoint the entrance of the womb with oil or freſh butter, if it be neceſſary, that ſo he may with more eaſe introduce his hand, which muſt alſo be anointed; and having by ſigns before mentioned received ſatisfaction that it is a dead child, he muſt do his endeavour to fetch it away as ſoon as poſſibly he can, and if the child offers the head firſt, he muſt gently put it back until he hath liberty to introduce his hand quite into the womb; then, ſliding it along under the belly to find the feet, let him draw it forth by them, being very careful to keep the head from being locked in the paſſage, and that it be not ſeparated from the body; which may be effected the more eaſily, becauſe the child being very rotten and putrified, the operator is not ſo mindful to keep the breaſt and face downwards as he is in living births. But if notwithſtanding all theſe precautions, by reaſon of the child's putrefaction, the head ſhould be ſeparated, and left behind in the womb, it muſt be drawn forth according to the directions which ſhall be given in ſect. 3. of this chapter for that purpoſe.—But when the head coming firſt, is ſo far advanced that it cannot be well put back, 'tis better to draw it forth ſo, than to torment the woman too much by putting it back to turn it, and bring it by the feet: but the head being a part round and ſlippery, it may ſo happen that the operator cannot take hold of it with his fingers by reaſon of its moiſter, nor put them up to the ſide of it, becauſe the paſſage is filled with its bigneſs, he muſt take a proper inſtrument, and put it up as far as he can without violence, between the womb and the child's head, obſerving to keep the point of it towards the head, (for the child being dead before, there can be no danger in the operation) and let him faſten it there, giving it good hold upon one of the bones of the ſkull, that it may not ſlide; and after it is well fixed in the head, he may therewith draw it forth, keeping the ends of the fingers of his left hand flat upon the oppoſite ſide, the better to help to diſengage it, and by wagging it by little to conduct it directly out of the paſſage, until the head be quit born; and then taking hold of it with the hands only, the ſhoulders may be drawn into the paſſage, and ſo ſliding the fingers of both hands under the arm-pits,

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the child may be quit delivered; and then the after-burdne fetched, to finish the operation, being careful not to pluck the navel-string too hard, lest it break, as often happens, when it is corrupted.

If the dead child comes with the arm up to the shoul der so extremely swelled that the woman must suffer too great a violence to have it put back, 'tis then (being first well assured the child is dead) best to take it off at the shoulder joints, by twisting three or four times about, which is very easily done, by reason of the softness and tenderness of the body; after the arm is so separated, and no longer possessing the passage, the operator will have more room to put up his hand into the womb, to fetch the child by the feet, and bring it away.

But although the operator be sure the child is dead in the womb, yet he must not therefore presently use instruments, because they are never to be used but when hands are not sufficient; and there is no other remedy to prevent the woman's danger, or to bring forth the child any other way: And the judicious operator will chuse that way which is the least hazardous and most safe.

SECT. II. *How a Woman must be delivered when the Child's Feet come first.*

THERE is nothing more obvious to those whose business it is to assist labouring women, than that the several unnatural postures in which children present themselves at their births are the occasion of most of the bad labours and ill accidents that happen unto women in such a condition.

And since midwives are very often obliged, because of the unnatural situations, to draw the children forth by the feet, I conceive it to be most proper to shew first how a child must be brought forth that presents itself in that posture, because it will be a guide to several of the rest.

I know indeed that in this case 'tis the advice of several authors to change the figure, and place the head so, that it may present the birth; and this counsel I should be very inclinable to follow, could they but also shew how it must be done: But it will appear very difficult, if not impossible to be performed, if we would avoid the dangers that by such violent agitations both the mother and the child must be put into;

to; and therefore my opinion is, that it is better to draw it forth by the feet, when it preſents itſelf in that poſture, than to venture a worſe accident by turning it.

As ſoon therefore as the waters are broke, and it is known that the child comes thus, and that the womb is open enough to admit the midwife's or operator's hand into it, or elſe by anointing the paſſages with oil or hog's greaſe, to endeavour to dilate it by degrees, uſing her fingers to this purpoſe, ſpreading them one from the other, after they are together entered, and continuing to do ſo till it be ſufficiently dilated, then taking care that her nails are well pared, and no rings on her fingers, and her hands well anointed with oil or freſh butter, and the woman placed in the manner directed in the former ſection, let her gently introduce her hand into the entry of the womb, where, finding the child's feet, let her draw it forth in the manner I ſhall preſently direct; only let her firſt ſee whether it preſents one foot, or both, and if but one foot, ſhe ought to conſider whether it be the right foot or the left, and alſo in what faſhion it comes; for by that means ſhe will ſooneſt come to know where to find the other, which as ſoon as ſhe knows and finds, let her gently draw it forth with the other; but of this ſhe muſt be eſpecially careful, viz. that this ſecond be not the foot of another child: for if ſo, it may be of the moſt fatal conſequence, for ſhe may ſooner ſplit both mother and child than draw them forth; but this may be eaſily prevented if ſhe does but ſlide her hand up the firſt leg and thigh to the twiſt, and there find both thighs joined together, and deſcending from one and the ſame body. And this is alſo the beſt means to find the other foot when it comes with but one.

As ſoon as the midwife hath found both the child's feet, ſhe may draw them forth, and holding them together, may bring them by little and little in this manner, taking afterwards hold of the legs and thighs as ſoon as ſhe can come at them, drawing them ſo till the hips be come forth. Whilſt this is doing, let her obſerve to wrap the parts in a ſingle cloth, that ſo her hands, being already greaſy, ſlide not on the infant's body, which is very ſlippery, becauſe of the viſcous humours which are all over it, and prevent one's taking good hold of it, which being done, ſhe may take hold under the hips, ſo to draw it forth to the beginning of the breaſt; and let her no both ſides with her hand bring down the arms

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along the child's body, which ſhe may then eaſily find; and then let her take care that the belly and face of the child be downwards, for if it ſhould be upwards, there would be ſome danger of its being ſtopt by the chin over the ſhare bone; and therefore, if it be not ſo, muſt turn it to that poſture; which may be eaſily done if ſhe take hold on the body when the breaſt and arms are forth in the manner we have ſaid, and draws it with turning it in proportion on that ſide which it moſt inclines to, till it be turned with the face downwards, and ſo having brought it to the ſhoulders, let her loſe no time, deſiring the woman at the ſame time to bear down, that ſo at drawing, the head at that inſtant may take its place, and not be ſtopt in the paſſage. Some children there are whoſe heads are ſo big, that when the whole body is born yet that ſtops in the paſſage, though the midwife takes all poſſible care to prevent it. And when this happens, ſhe muſt not endeavour only to draw forth the child by the ſhoulders, leſt ſhe ſometimes ſeparate the body from the head, as I have known it done by the midwife, but ſhe muſt diſcharge it by little and little from the bones in the paſſage with the fingers of each hand, liding them on each ſide oppoſite the one to the other, ſometimes above, and ſometimes under, until the work be ended; endeavouring to diſpatch it as ſoon as poſſible, leſt the child be ſuffocated, as it will unavoidably be if it ſhould remain long in that poſture; and this being well and carefully effected, ſhe may ſoon after fetch away the after-birth, as I have before directed.

SECT. III. *How to bring away the Head of the Child when ſeparated from the Body, and left behind in the Womb.*

THOUGH the utmoſt care be taken in bringing away the child by the feet, yet, if the child happens to be dead, it is ſometimes ſo putrified and corrupted, that with the leaſt pull the body ſeparates from the head, and remains alone in the womb, and cannot be brought away but with a manual operation and difficulty; ſo it being extremely ſlippery, by reaſon of the place where it is, and from the roundneſs of its figure, on which no hold can be well taken; and ſo very great is the difficulty in this caſe, that ſometimes two or three able practitioners in the art of midwifery have one after the other left the operation unfiniſhed, as not able to

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effect it, after the utmoſt efforts of their induſtry, ſkill, and ſtrength; ſo that the woman, not being able to be delivered, periſhed. To prevent which fatal accidents for the time to come, let the following operation be obſerved.

When the infant's head ſeparates from its body, and is left alone behind, whether through putrefaction, or otherwiſe, let the operator immediately, without any delay, whilſt the womb is yet open, direct up his right hand to the mouth of the head, (for no other hole can there be had,) and having found it, let him put one or two of his fingers into it, and the thumb under his chin, then let him draw it by little and little, holding it ſo by the jaw: but if that fails, as ſometimes it will, when putrified, then let him pull forth his right hand, and ſlide up his left, with which he muſt ſupport the head, and with the right let him take a narrow inſtrument called a crochet; but let it be ſtrong and with a ſingle branch, which he muſt guide along the inſide of his hand, with the point of it towards it for fear of hurting the womb; and having thus introduced it, let him turn it towards the head, for to ſtrike either into an eye hole, or the hole of an ear, or behind the head, or elſe between the ſtature, as he finds it moſt convenient and eaſy; and then draw forth the head ſo faſtened with the ſaid inſtrument, ſtill helping to conduct it with his left hand; but when he hath brought it near the paſſage, being ſtrongly faſtened to the inſtrument, let him remember to draw forth his hand, that the paſſage not being filled with it may be the larger and eaſier, keeping ſtill a finger or two on the ſide of the head, the better to diſengage it.

There is alſo another way to this, with more eaſe and leſs hardſhip than the former; which is this, let the operator take a ſoft fillet or linen ſlip of about four fingers breadth and the length of three quarters of an ell or thereabouts, taking the two ends with the left hand, and the middle with the right, and let him ſo put it up with his right as that it may be beyond the head, to embrace it as a ſling doth a ſtone; and afterwards draw forth the fillet by the two ends together, it will eaſily be drawn forth, the fillet not hindering the leaſt paſſage, becauſe it takes up little or no place.

When the head is thus fetched out of the womb, care muſt be taken that not the leaſt part of it be left behind, and likewiſe to cleanſe the woman well of her after-burden, if any remaining. Some have queſtioned whether the child's

head

head yet remaining in the womb, and the after birth too, which ought to be brought away first? The answer to which question may be by way of distinction; that is to say, if the burden be wholly separated from the sides of the womb, that ought to be first brought away, because it may also hinder the taking hold of the head; but if it still adheres to the womb, it must not be meddled with till the head be brought away; for if one should then go about to separate it from the womb, it might then cause a flooding, which would be augmented by the violence of the operation; the vessels to which it is joined remaining for the most part open as long as the womb is distended, which the head causeth while it is retained in it, and cannot close till this strange body be avoided, and then it doth by contraction and compressing itself together, as has been more fully before explained. Besides the after birth remaining thus cleaving to the womb during the operation, prevents it from receiving easily either bruise or hurt.

SECT. IV. *How to deliver a Woman when the side of the Child's Head is presented to the Birth.*

THOUGH some may think it a natural labour when the child's head may come first, but yet if the child's head presents not the right way, even that is an unnatural labour; and therefore, though the head comes first, yet, if it be the side of the head instead of the crown, it is very dangerous both to the mother and child, for the child may sooner break its neck than be born in that manner; and by how much the mother's pains continue to bear the child, which it is impossible unless the head be rightly placed, the more the passages are stopt; therefore, as soon as the position of the child is known, the woman must be laid with all speed, lest the child should advance further in this vicious posture, and therefore render it more difficult to thrust it back, which must be done in order to place the head in the passage right as it ought to be.

To this purpose therefore place the woman so that her hips may be a little higher than her head and shoulders, causing her to lean a little upon the opposite side to the child's ill posture; then let the operator slide up his hand, well

anointed with oil, by the ſide of the child's head, to bring it right, gently with his fingers between the head and the womb; but if the head be ſo engaged that it cannot be done that way, he muſt then put up his hand up to the ſhoulders, that ſo by thruſting them back a little into the womb, ſometimes on the one ſide and ſometimes on the other, he may by little and little give it a natural poſition. I confeſs it would be better if the operator could put back the child by its ſhoulders with both hands; but the head takes up ſo much room, that he will find much ado to put up one, with which he muſt perform his operation with the help of the finger ends of the other hand, put forward the child's birth as when the labour is natural.

Some children preſent their face firſt, having their heads turned back, in which poſture it is extremely difficult that a child ſhould be born; and if it continue ſo long, the face will be ſwelled, and withal black and blue, that it will at firſt ſeem monſtrous, which is occaſioned as well by the compreſſion of it in that place as by the midwife's fingers handling it too readily, in order to place it in a better poſture. But this blackneſs will wear away in three or four days time, anointing it often with oil of ſweet almonds. To deliver the birth, the ſame operation muſt be uſed as in the former, when the child comes firſt with the ſide of the head; only let the midwife or operator work very gently to avoid as much as poſſible the bruiſing of the face.

SECT. V. *How to deliver a Woman when a Child preſents one or both hands together with the head.*

SOMETIMES the infant will preſent ſome other part together with its head, which if it does, it is uſually one or both its hands; and this hinders the birth, becauſe the hands take up part of that paſſage which is little enough for the head alone; beſides, that when this happens they generally cauſe the head to lean on one ſide; and therefore this poſition may be very well ſtiled unnatural. When the child preſents thus, the firſt thing to be done, after it is perceived, muſt be to prevent it from coming down more, or engaging further in the paſſage, and therefore the operator, having placed the woman on the bed with her head a little lower than her hips, muſt put and guide back the infant's hand with

with his own as much as may be, or both of them, if they both come down, to give way to the child's head; and this being done, if the head be on one ſide, it muſt be brought into its natural poſture in the middle of the paſſage, that it may come in a ſtrait line, and then proceed as directed in the foregoing ſection.

SECT. VI. *How a Woman is to be delivered when the Hands or Feet of the Infant come together.*

THERE is none but will readily grant, that when the hands and feet of an infant preſent together, the labour muſt be unnatural, becauſe it is impoſſible a child ſhould be born in that manner. In this, therefore, when the midwife guides her hand towards the orifice of the womb, ſhe will perceive only many fingers cloſe together; and if it be not ſufficiently dilated, it will be a good while before the hands and feet will be exactly diſtinguiſhed; for they are ſometimes ſo ſhut and preſſed together that they ſeem to be all of one and the ſame ſhape; but where the womb is open enough to introduce the hand into it, ſhe will eaſily know which are the hands and which are the feet; and having well taken notice thereof, let her ſlide up her hand; and preſently direct it towards the infant's breaſt; which ſhe will find very near, and then let her very gently thruſt back the body towards the bottom of the womb, leaving the feet in the ſame place where ſhe found them; and then having placed the woman in a convenient poſture, that is, to lay her hips a little raiſed above her breaſt and head, (which ſituation ought always to be obſerved when the child is to be put back into the womb) let the midwife afterwards take hold of the child by the feet, and draw it forth, as is directed in the ſecond ſection.

This labour, though ſomewhat troubleſome, yet is much better than when the child preſents only its hands; for the child muſt be quite turned about before it can be drawn forth; but in this they are ready, preſenting themſelves; and in this there is not much to do, but to liſt and thruſt back a little the upper part of the body, which is almoſt done of itſelf by drawing it alone by the feet.

I confeſs there are many authors that have written of labours who would have all wrong births reduced to a na-

tural figure; which is to turn it, that it may come with the head firſt; but thoſe that have thus written are ſuch as never underſtood the practical part; for if they had the leaſt experience herein, would know that it is very often impoſſible, at leaſt if it were to be done, that violence muſt neceſſarily be uſed in doing it, that would very probably be the death of mother and child in the operation. I would therefore lay down, as a general rule, that whenſoever an infant preſents itſelf wrong to the birth, in what poſture ſoever from the ſhoulders to the feet, it is the beſt way, and ſooneſt done, to draw it out by the feet: and that it is better ſearching for them if they do not preſent themſelves, rather than try to put it in the natural poſture, and place the head foremoſt; for the great endeavours neceſſary to be uſed in turning the infant in the womb do ſo much weaken both mother and child, that there remains not afterwards ſtrength enough to commit the operation to the work of nature; for uſually the woman hath no more throws or pains fit for labour after ſhe has been ſo wrought upon; for which reaſon it would be very difficult and tedious at beſt; and the child, by ſuch an operation made very weak, would be in extreme danger of periſhing before it could be born. It is therefore much better in theſe caſes to bring it away immediately by the feet; ſearching for them, as I have already directed, when they do not preſent themſelves; by which the mother will be prevented of a tedious labour, and the child be often brought alive into the world, who otherwiſe would hardly eſcape from death. And thus much ſhall ſuffice to be ſaid of unnatural labours; for, by the rule already given, a ſkilful artiſt will know how to proceed in any poſture in which the child ſhall preſent itſelf.

SECT. VIII. *How a Woman ſhould be delivered that has Twins, which preſent themſelves in different Poſtures.*

WE have already ſpoken ſomething of the birth of twins in the chapter of natural labour; for it is not an unnatural labour barely to have twins, provided they come in a right poſition to the birth. But when they ſhall preſent themſelves in divers poſtures, they come properly under the denomination of unnatural labours; and if when one child preſents itſelf in a wrong figure, it makes the labour dangerous

gerous and unnatural, it muſt needs make it much more ſo when there are ſeveral, and render it not only more painful to the mother and children, but to the operator alſo, for they often trouble each other, and hinder both their births; beſides which, the womb is then ſo filled with them, that the operator can hardly introduce his hand without much violence, which he muſt do, if they are to be turned or thruſt back, to give them a better poſition.

When a woman is pregnant with two children, they rarely preſent to the birth together, the one being generally more forward than the other, and that is the reaſon that but one is felt; and that many times the midwife knows not that there are twins till the firſt is born, and that ſhe is going to fetch away the after birth. In the fifth chapter, wherein I treated of natural labour, I ſhewed how a woman ſhould be delivered of twins, preſenting themſelves both right; and therefore, before I cloſe this chapter of unnatural labour, it only remains that I ſhew what ought to be done, when they either both come wrong, or one of them only, as for the moſt part it happens; the firſt generally coming right, and the ſecond with the feet forward, or in ſome worſe poſture. In ſuch a caſe, the birth of the firſt muſt be haſtened as much as poſſible to make way for the ſecond, which is beſt brought away by the feet, without endeavouring to place it right, even though it was ſomewhat inclining towards it, becauſe it has been already tired and weakened by the birth of the firſt, as well as its mother, that there would be greater danger of its death than likelihood of its coming out of the womb that way.

But if, when the firſt is born naturally, the ſecond ſhould likewiſe offer its head to the birth, it would be then beſt leaving nature to finiſh what ſhe has ſo well begun; and if nature ſhould be too ſlow in her work, ſome of thoſe things mentioned in the fourth chapter to accelerate the birth may be properly enough applied: and if, after that, the ſecond birth ſhould be yet delayed, let a manual operation be deferred no longer; but the woman being properly placed, as has been before directed, let the operator direct his hand gently into the womb to find the feet, and ſo draw forth the ſecond child, which will be the more eaſily effected, becauſe there is way made ſufficient by the birth of the firſt; and if the waters of this ſecond child be not broke, as it often happens, yet

yet intending to bring it by the feet, he need not ſcruple to break the membranes with his fingers: for though, when the birth of a child is left to the operation of nature, it is neceſſary that the waters ſhould break of themſelves; yet when the child is brought out of the womb by art, there is no danger in breaking of them; nay, on the contrary, it becomes neceſſary; for without the waters are broke it would be almoſt impoſſible to turn the child.

But herein principally lies the care of the operator that he is not deceived, when either the hands or feet of both children offer themſelves together to the birth, in this caſe he ought well to conſider the operation, as whether they be not joined together, or any way monſtrous; and which part belongs to one child and which to the other, that ſo they may be fetched one after the other, and not both together, as might be, if it were not duly conſidered, taking the right foot of the one and the left of the other, and ſo drawing them together, as if they both belonged to one body, becauſe there is a left and a right, by which means it would be impoſſible ever to deliver them: But a ſkilful operator will eaſily prevent this, if having found two or three feet of ſeveral children, preſenting together in a paſſage, and taking aſide two of the forwardeſt, a right and a left, and ſliding his hand along the legs and thighs up to the twiſt, if forwards, or the buttocks, if backwards, he find they both belong to one body; of which being thus aſſured, he may begin to draw forth the neareſt, without regarding which is ſtrongeſt or weakeſt, bigger or leſs, living or dead, having put firſt a little aſide that part of the other child which offers to have the more way, and ſo diſpatch the firſt, whenever it is, as ſoon as may be, obſerving the ſame rules as if there were but one, that is, keeping the breaſt and face downwards, with every circumſtance directed in that ſection where the child comes with its feet firſt; and not fetch the burthen till the ſecond child is born. And therefore, when the operator hath drawn forth one child, he muſt ſeparate it from the burden, having tied and cut the navel-ſtring, and then fetch the other by the feet in the ſame manner, and afterwards bring away the after-burden with the two ſtrings, as hath been before ſhewed. If the children preſent any other part than the feet, the operator may follow the ſame

method as is directed in the foregoing ſection, where the ſeveral unnatural poſitions are fully treated of.

CHAP. VIII.

Directions for Child-bearing Women in their lying-in.

IN the fourth, fifth, and ſixth chapters, we have treated at large of women's labour, and how they may be ſafely delivered both in natural and unnatural labours. Having therefore thus brought a good woman to bed, I will in this chapter direct how ſhe ought to be ordered in her lying in.

SECT. II. *How a Woman newly delivered ought to be ordered.*

AS ſoon as ſhe is laid in her bed, let her be placed in it conveniently for eaſe and reſt, which ſhe ſtands in great need of, to recover herſelf of the great fatigue ſhe underwent during her travail; and that ſhe may lie the more eaſily, let her head and body be a little raiſed, that ſhe may breathe more freely, and cleanſe the better, eſpecially of that blood which then comes away, that ſo it may not clot, which being retained cauſeth very great pain.

Having thus placed her in bed, let her drink a draught of burnt white wine, when you have firſt melted therein a dram of ſpermaceti. The herb vervain is alſo a moſt ſingular herb for a woman in this condition, boiling it in what ſhe either eats or drinks, fortifying the womb ſo exceedingly, that it will do it more good in two days, having no offenſive taſte, though very pleaſant virtues. And this is no more than what ſhe ſtands in need of, for her lower parts being greatly diſtended to the birth of the infant, it is good to endeavour the prevention of an inflammation there. Let there be alſo outwardly applied all over the bottom of the belly and privities the following anodyne or cataplaſm: Take two ounces of oil of ſweet almonds, and two or three new laid eggs, yolks and whites, ſtirring them together in an earthen pipkin over hot embers, till it comes to the conſiſtence of a poultice; which being ſpread upon a cloth, muſt be applied to thoſe parts indifferently warm, having firſt taken away the cloſures, (which were put to her preſently after

after her delivery), and likewiſe ſuch clots of blood as were then left. Let this lie on five or ſix hours, and then renew it again as you ſee cauſe.

Great care ought to be taken at firſt, that if her body be very weak, ſhe be not kept too hot, for extremity of heat weakens nature and diſſolves the ſtrength; and whether ſhe be weak or ſtrong, be ſure that no cold air come near her at firſt; for cold is an enemy to the ſpermatic parts, and if it gets into the womb it increaſes the after-pains, cauſes ſwellings in the womb, and hurts the nerves. As to her diet, let it be hot, and let her eat but little at a time. Let her avoid the light for the three firſt days and longer if ſhe be weak, for her labour weakens her eyes exceedingly, by a harmony between the womb and them. Let her alſo avoid great noiſe, ſadneſs, and trouble of mind.

If the womb be foul, which may be eaſily perceived by the impurity of the blood, (which will then either come away in clots or ſtinking, or if you ſuſpect any of the after-burden to be left behind, which may ſometimes happen), make her drink of featherfew, mugwort, pennyroyal, and mother of thyme, boiled in white-wine, ſweetened with ſugar.

Panady and new-laid eggs is the beſt meat for her at firſt, of which ſhe may eat often, but not too much at a time.

And let her nurſe uſe cinnamon in all her meats and drinks, for it is a great ſtrengthener to the womb.

Let her ſtir as little as may till after the fifth, ſixth, or ſeventh days of her delivery, if ſhe be weak. And let her talk as little as may be, for that weakens her.

If ſhe goes not well to ſtool, give a clyſter made only with the decoction of mallows and a little brown ſugar.

When ſhe hath lain in a week or ſomething more, let her uſe ſuch things as cloſe the womb, of which knot graſs and comfrey are very good; and to them you may add a little polipodium, for it will do her good, both leaves and roots being bruiſed.

SECT. III. *How to remedy thoſe cients which a lying-in Woman is ſubject to.*

1. THE firſt common and uſual accident that troubles women in their lying in is after pains; about the cauſe whereof phyſicians make no ſmall ſtir, ſome affirming one thing to be the cauſe and ſome another: but it is moſt certain that they proceed from cold and wind contained in the bowels, with which they are eaſily filled after labour, becauſe there they have more room to dilate than when the child was in the womb, by which they were compreſſed; and alſo becauſe nouriſhment and matter contained as well in them as in the ſtomach, have been ſo confuſedly agitated from ſide to ſide during the pains of labour, by the throws which always muſt compreſs the belly, that they could not be well digeſted, whence this wind is afterwards generated, and by conſequence the gripes which the woman feels running into her belly from ſide to ſide, according as the wind moves more or leſs, and ſometimes likewiſe from the womb, becauſe of the compreſſion and commotion which the bowels make: Theſe being generally the cauſe, let us now apply a ſuitable remedy.

1. Boil an egg ſoft, and pour out the yolk of it, with which mix a ſpoonful of cinnamon water, and let her drink it; and if you mix in it two grains of ambergreaſe it will be the better; and yet vervain taken in any thing ſhe drinks will be as effectual as the other.

2. Give the lying-in woman, immediately after delivery, oil of ſweet almonds and ſyrup of maiden-hair mixed together. Some prefer oil of walnuts, provided it be made of nuts that are very good, but taſtes worſe than the other at beſt. This will lenify the inſide of the inteſtines by its unctuouſneſs, and by that means bring away that which is contained in them more eaſily.

3. Take and boil onions very well in water, then ſtamp them with oil and cinnamon, and ſeed in powder, ſpread them upon a cloth, and apply them to the region of the womb.

4. Let her be careful to keep her belly very hot, and not to drink too cold; and, if they prove very violent, hot cloths from time to time muſt be laid to her belly, or a pancake fried

fried in walnut oil may be applied to it without ſwathing her belly too ſtrait. And for the better evacuating the wind out of the inteſtines, give her a clyſter, which may be repeated as often as neceſſity requires.

5. Take bay berries, beat them to powder, put the powder upon a chaffing-diſh of coals, and let her receive the ſmoke of them up her privities.

6. Take tar and barrows greaſe, of each an equal quantity, boil them together, and whilſt it is boiling, add a little pigeons dung to it. Spread ſome of this upon a linen cloth, and apply it to the reins of the back of her that is troubled with after-pains, and it will give her ſpeedy eaſe.

Laſtly, Let her take half a dram of bay berries beaten into a powder in a draught of muſkadel or tent.

II. Another accident to which women in child-bed are ſubject is, the hemorrhoids, or piles, occaſioned through their great ſtraining in bringing the child into the world. To cure this,

1. Let her be let blood in the vain ſaphæna.

2. Let her uſe polypodium in her meat and drink, bruiſed and boiled.

3. Take an onion, and having made a hole in the middle of it, fill it full of oil, roaſt it, and having bruiſed it all together, apply it to the fundament.

4. Take a dozen of ſnails without ſhells if you can get them, or elſe ſo many ſhell ſnails, and pull them out, and having bruiſed them with a little oil, apply them warm to the fundament.

5. Take as many wood-lice as you can get, and bruiſe them, and having mixed them with a little oil, apply them warm as before.

6. If ſhe go well to ſtool, let her take an ounce of caſſia fiſtula drawn at night going to bed; ſhe need no change of diet after.

III. Retention of the menſtrues is another accident happening to women in child-bed; and which is of ſo dangerous a conſequence that, if not timely remedied, it proves mortal. Where this happens,

1. Let the woman take ſuch medicines as ſtrongly provoke the terms, and ſuch are dittany, bettony, penny royal, ſavory, feverfew, century, juniper berries, piony root.

2 Let

2. Let her take two or three ſpoonfuls of briony water each morning.

3. Gentian roots beaten into a powder, and a dram of them taken every morning in wine, is an extraordinary remedy.

4. The roots of birthwort, either long or round, ſo uſed and taken as the former, is very good.

5. Take twelve piony-ſeeds, and beat them into very fine powder, and let her drink them in a draught of hot cardus poſſet, and let her ſweat after. And if his laſt medicine don't bring them down the firſt time ſhe takes it, let her take as much more three hours after, and it ſeldom fails.

IV. Overflowing of the menſtrues is another accident incidental to child bed women.

1. Take ſhepherds purſe, either boiled in any convenient liquor, or dried and beaten into powder, and it will be an admirable remedy to ſtop them, this being eſpecially appropriated to the privities.

2. The flowers and leaves of brambles, or either of them, being dried and beaten into powder, and a dram of them taken every morning in a ſpoonful of red-wine, or in a decoction of the leaves of the ſame, (which perhaps is much better) is an admirable remedy for the immoderate flowing of the terms in women.

V. Excoriations, bruiſes, and rents of the lower part of the womb, are often occaſioned by the violent diſtention and ſeparation of the four carnucles in a woman's labour. For the healing whereof,

As ſoon as the woman is laid, if there be only ſimple contuſions and excoriations, then let the anodyne cataplaſm, formerly directed, be applied to the lower parts to eaſe the pain, made of the yolks and whites of new laid eggs, and oil of roſes boiled a little over warm embers, continually ſtirring it till it be equally mixed, and then ſpread upon a fine cloth, it muſt be applied very warm to the bearing place for five or ſix hours, and when it is taken away, lay ſome fine rags, dipped in oil of St John's wort, on each ſide of the bearing place, or let the part excoriated be anointed with oil of St John's-wort twice or thrice a day; alſo foment the parts with barley-water and honey of roſes to cleanſe them from the excrements which paſs. When the woman makes water,

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let them be defended with fine rags, and thereby hinder the urine from cauſing ſmart and pain.

VI. The curdling and clotting of the milk is another accident that often happens to women in child-bed; for in the beginning of child-bed the woman's milk is not purified, becauſe of the great commotions her body ſuffered during her labour, which affected all the parts, and it is then mixed with many other humours. Now this clotting of milk does for the moſt part proceed from the breaſts not being fully drawn, and that either becauſe ſhe hath too much milk, and that the infant is too ſmall and weak to ſuck all, or becauſe ſhe doth not deſire to be a nurſe, for the milk in thoſe caſes remaining in the breaſt after concoction without being drawn, loſeth the ſweetneſs and the balſamatic quality it had, and by reaſon of the heat it acquires, and the too long ſtay it makes there, it ſours, curdles, and clots, in like manner as we ſee runnet put into ordinary milk turns it into curds. This curdling of the milk may be alſo cauſed by having taken a great cold, and not keeping the breaſt well covered.

But from what cauſes ſoever this curdling of the milk proceeds, the moſt certain remedy is, ſpeedily to draw the breaſts until they are emitted and dried. But in regard to the infant, by reaſon of weakneſs it cannot draw ſtrong enough, the woman being hard marked when her milk is curdled, it will be moſt proper to get another woman to draw her breaſts until the milk comes freely, and then ſhe may give her child ſuck. And that ſhe may not afterwards be troubled with a ſurplus of milk, ſhe muſt eat ſuch diet as gives but little nouriſhment, and that ſhe keep her body open.

But if the caſe be ſuch that the woman neither can nor will be a nurſe, it is then neceſſary to apply other remedies for the curing of this diſtemper. For then it will be beſt not to draw her breaſt, for that will be the way to bring more milk into them; for which purpoſe it will be neceſſary to empty the body by bleeding in the arm; beſides which, let the humours be drawn down by ſtrong clyſters and bleeding in the foot, nor will it be amiſs to purge gently; and to digeſt, diſſolve, and diſſipate the curdled milk, apply the cataplaſm of pure honey, or that of the four brains diſſolved in a decoction of ſage, milk, ſmallage, and fennel, mixing with it oil of camomile, with which oil let the breaſts be alſo well

well anointed. This following liniment is also good to scatter and dissipate the milk.

A Liniment to scatter and dissipate the Milk.

That the milk flowing back to the breasts may without offence be dissipated, you must use this ointment: 'Take pure wax two ounces, of linseed oil half a pound; when the wax is melted, let the liniment be made, wherein linen cloths must be dipped, and according to their largeness, be laid upon the breast; and when it shall be discussed and pains no more, let other linen cloths be dipped in the distilled water of acorns, and put upon them.'

Note, That the cloths dipped in the distilled water of acorns must be used only by those that cannot nurse their own children; but if a swelling in the breasts of them which gave suck do arise from abundance of milk, and threatens an inflammation, let them use the former ointment, but abstain from using the distilled water of acorns.

CHAP. VIII.

Directions for Nurses in ordering new-born Children.

HAVING in the former chapter shewn how the lying-in woman should be ordered, it is now high time to take care of the infant; to whom the first service that should be performed for it is the cutting of the navel-string, of which I have spoken at large before.

SECT. I. *What is to be done to the new born Infant after cutting the Navel-string.*

WHEN the child's navel string hath been cut according to the rules before prescribed, let the midwife presently cleanse it from the excrements and filth it brings into the world with it; of which some are within the body, as the urine in the bladder, and the excrement found in the guts; and others without, which are thick and whitish, and clammy, proceeding from the sliminess of the waters; there are children sometimes so covered all over with this that one would say they were rubbed over with soft cheese, and some women are of so easy a belief that they really think it so, because they had eaten some while they were with child.

From theſe excrements, let the child be cleanſed with wine and water a little warmed, waſhing every part therewith, but chiefly the head, becauſe of the hair, alſo the folds of the groins, armpits, and the cods or privities; which parts muſt be gently cleanſed with a linen rag, or a ſoft ſpunge dipped in this luke-warm wine. If this clammy or viſcous excrement ſtick ſo cloſe that it will not be eaſily waſhed of from thoſe places, it may be fetched off with oil of ſweet almonds, or a little freſh butter melted with wine, and afterwards well dried off; ſhe muſt alſo make tents of fine rags, and, wetting them in this liquor, clear the ears and noſtrils; but for the eyes, wipe them only with a dry ſoft rag, not dipping it in the wine leſt it ſhould make them ſmart.

The child being thus waſhed and cleanſed from its native blood and impurities which attended it into the world, it muſt in the next place be ſearched to ſee whether all things be right about it, and that there is no fault or diſlocation; whether its noſe be ſtrait or its tongue tied, or whether there be any bruiſe or tumour of the head, or whether the mold be not overſhotten; alſo whether the ſcrotum (in caſe it be a boy) be not blown up and ſwelled; and, in ſhort, whether it has ſuffered any violence by its birth in any part of its body, and whether all the parts be well and duly ſhaped, that ſuitable remedies may be applied if any thing be not found right. Nor is it enough to ſee that all be right without, and that the outſide of the body be cleanſed, but ſhe muſt chiefly obſerve whether it diſchargeth the excrements retained within, and whether the paſſages be open, for ſome have been born without having them perforated; therefore, let her examine whether the conduits of the urine and ſtool be clear, for want of which ſome have died, not being able to void their excrements, becauſe timely care was not taken at firſt. As to the urine, all children, as well males as females do make water as ſoon as they are born if they can, eſpecially when they feel the heat of the fire, and ſometimes alſo the excrements, but not ſo ſoon as the urine. If the infant does not ordure the firſt day, then put up into its fundament a ſmall ſuppoſitory, to ſtir it up to be diſcharged, that it may not cauſe painful gripes by remaining ſo long in its belly. A ſugar almond may be proper for this purpoſe, anointed over with a little boiled honey; or elſe a ſmall piece of caſtile ſoap rubbed over with freſh butter; ſhe may alſo give the child

child for this purpoſe a little ſyrup of roſes or violets at the mouth, mixed with ſome oil of ſweet almonds drawn without a fire, anointing the belly alſo with the ſame oil or a little freſh butter.

The midwife having thus waſhed and cleanſed the child, according to the before mentioned directions, let her begin to ſwaddle it in ſwathing cloths, and when ſhe dreſſes the head, let her put ſmall rags behind the ears to dry up the filth which uſually engenders there, and ſo let her do alſo in the folds of the arm pits and groins, and ſo ſwathe it, having wrapped it up warm in beds and blankets, which there is ſcarce any woman ſo fooliſh but knows well enough how to do, only let me give them this caution, that they ſwathe not the child too ſtrait in its blankets, eſpecially about the breaſt and ſtomach, that it may breathe the more freely, and not be forced to vomit up the milk it ſucks, becauſe the ſtomach cannot be ſufficiently extended to contain it; therefore let its arms and legs be wrapped in its bed, ſtretched and ſtrait, and ſwathed to keep them ſo, viz. the arms along its ſides, and its legs equally both together, with a little of the bed between them, that they may not be galled by rubbing each other: then let the head be kept ſteady and ſtrait, with a ſtay faſtened on each ſide the blanket, and then wrap the child up in mantles and blankets to keep it warm. Let none think this of ſwathing the infant is needleſs to ſet down, for it is neceſſary it ſhould be thus ſwaddled, to give its little body a ſtrait figure, which is moſt decent and proper for a man, and to accuſtom him to keep upon his feet, who otherwiſe would go upon all-four, as moſt other animals do.

CHAP. IX.

IN new born children there are ſo many diſtempers they are ſubject to that daily experience ſhews us there are not above half the children that are born which live till they are three years old; which is occaſioned, as well becauſe of the tenderneſs of their bodies, as the feebleneſs of their age, which hinders them from expreſſing the inconvenience they labour under, any otherwiſe than by their cries. The buſineſs of this chapter therefore ſhall be to diſcover the indiſpoſitions to which they are ſubject, with the remedies proper for them.

SECT I. *Of Gripes and Pains in the Bellies of young Children.*

THIS I mention firſt, as it is often the firſt and moſt common diſtemper which happens to little infants after their birth, many children being ſo troubled and pained therewith, that it cauſes them to cry night and day, and at laſt to die of it. The cauſe of it for the moſt part comes from the ſudden change of their nouriſhment; for having always received it from the umbilical veſſels whilſt in their mother's womb, they come on a ſudden to change not only the manner of receiving it, but the nature and quality of what they receive as ſoon as they are born; for inſtead of putrified blood only, which was conveyed to them by means of the umbilical vein only, they are now obliged to be nouriſhed with their mother's milk, which they ſuck with their mouths, and from which are ingendered many excrements, cauſing gripes and pains, and that not only becauſe it is not ſo pure as the blood with which it was nouriſhed in the womb, but becauſe the ſtomach and inteſtines cannot yet make a good digeſtion, being unaccuſtomed to it. It is alſo cauſed ſometimes by a rough phlegm, and ſometimes by the worms, for phyſicians affirm that worms have been bred in children even in their mother's belly.

The remedy therefore muſt be ſuited according to the cauſe. If it proceed from the too ſudden changes of nouriſhment, the remedy muſt be to forbear giving the child ſuck for ſome days, leſt the milk be mixed with phlegm, which is then in the ſtomach corrupt: and at firſt it muſt ſuck but little, until it be accuſtomed to digeſt it. If it be the excrements in the inteſtines, which by their long ſtay increaſe theſe pains, give them at the mouth a little oil of ſweet almonds and ſyrup of roſes; if it be worms, lay a cloth dipped in oil of wormwood, mixed with ox-gall, upon the belly; or a ſmall cataplaſm, mixed with the powder of rue, wormwood, caloquintida, aloes, and the ſeeds of citron, incorporated with ox gall, and the powder of lupines. Or give it oil of ſweet almonds, with ſugar candy, and a ſcruple of anniſeed; it purgeth new born babes from green choler and ſtinking phlegm; and if it be given with ſugar-pap, it allays the griping

griping pains of the belly. Alſo anoint the belly with oil of dill, or pelitory ſtamp, with oil of camomile, to the belly.

SECT. II. *Of Weakneſs in new born Infants.*

WEAKNESS is an accident that many children bring into the world along with them, and is often occaſioned by the labour of the mother; by the violence and length whereof they ſuffer ſo much, that they are born with great weakneſs, and many times it is difficult to know whether they are alive or dead, their body appearing ſo ſenſeleſs, and their face ſo blue and livid, that they ſeem to be quite choaked; and even after ſome hours, their ſhewing any ſigns of life is attended with ſo much weakneſs, that it looks like a return from death, and that they are ſtill upon the borders of this kingdom.

In this caſe, the beſt way to help the infant is, to lay him ſpeedily in a warm bed and blanket, and carry him to the fire, and then let the midwife ſup a little wine, and ſpout it into his mouth, repeating it often if there be occaſion. Let her apply linen to the breaſt and belly dipped in wine, and let the face be uncovered, that he may breathe the more freely; alſo let the midwife keep its mouth a little open, cleanſe the noſtrils with ſmall linen tents dipped in white-wine, that ſo he may receive the ſmell of it, and let her chaff every part of his body well with warm cloths, to bring back the blood and ſpirits, which being retired inwards, through weakneſs, often puts him in danger of being choaked. By the application of theſe means the infant will inſenſibly recover ſtrength, and begin to ſtir his limbs by degrees, and at length to cry, which though it be but weakly at firſt, yet afterwards, as he breathes more freely, will cry ſtronger and ſtronger.

SECT. III. *Of the Fundament being cloſed up in a new born Infant.*

ANOTHER defect that new-born infants are liable to is, to have their fundaments cloſed up, by means whereof they can neither evacuate the new excrements engendered by the milk they ſuck, nor that which was amaſſed in their inteſtines whilſt in their mother's belly, which is certainly

tainly mortal without a ſpeedy remedy. There have been ſome female children who have had their fundament quite cloſed, and yet have avoided the excrements of the guts by an orifice, which nature, to ſupply that defect, had made within the neck of the womb.

For the cure or remedy of this, we muſt take notice that the fundament is cloſed two ways; either by a ſingle ſkin, through which one may diſcover ſome black and blue marks, proceeding from the excrements retained, which, if one touch with the finger, there is a ſoftneſs left within, and thereabouts it ought to be pierced; or elſe it is quite ſtopped by a thick fleſhy ſubſtance, in ſuch ſort that there appears nothing without by which its true ſituation may be known. When there is nothing but the ſingle ſkin which makes the cloſure, operation is very eaſy, and the children may do very well; for then an apertion or opening may be made with a ſmall inciſion knife croſs-ways, that it may the better receive a round form, and that the place may not afterwards grow together, taking great care not to prejudice the ſphincter or muſcle of the Rectum. The inciſion being thus made, the excrements will certainly have iſſue. But if by reaſon of their long ſtay in the belly, they are become ſo dry that the infant cannot void them, then let a ſmall clyſter be given to moiſten and bring them away; afterwards put a linen tent into the new made fundament, which at firſt had beſt be anointed with honey of roſes, and towards the end with a drying cicatrizing ointment, ſuch as Unguentum Album, or Pomphilix, obſerving to cleanſe the infant of his excrements, and dry it again as ſoon and as often as he evacuates them, that ſo the apertion may be prevented from turning into a malignant ulcer.

But now if the fundament be ſtopped up in ſuch a manner that neither mark nor appearance can be either ſeen or felt, then the operation is much more difficult; and even when it is done, the danger is much more of the infant's eſcaping it. And then if it be a female, and that it ſends forth its excrements by the way I have mentioned before, it is better not to meddle than, by endeavouring to remedy an inconvenience, run an extreme hazard of the infant's death. But when there is no vent for the excrements, without which death is unavoidable, there the operation is juſtifiable.

The operation in this caſe muſt be thus: Let the operator, with

with a ſmall inciſion-knife that hath but one edge, enter into the void place, and turning the back of it upwards within half a finger's breadth of the child's rump, which is the place where he will certainly find the inteſtine, let him thruſt it forward, that it may be open enough to give free vent to the matters there contained, being eſpecially careful of the ſpincter; after which, let the wound be dreſſed according to the method directed.

SECT. V. *Of the Thruſh, or Ulcers in the Mouth of an Infant.*

THE thruſh is a diſtemper that children are very often ſubject to, and it ariſes from bad milk, or from foul humours in the ſtomach; for ſometimes, though there be no ill quality in the milk itſelf, yet it may corrupt in the child's ſtomach becauſe of its weakneſs, or ſome other indiſpoſition, in which, acquiring an acrimony inſtead of being well digeſted, there ariſe from thence biting vapours, which forming a thick viſcoſity do thereby produce this diſtemper.

It is often difficult, as phyſicians tell us, becauſe it is ſeated in hot and moiſt places, where the putrefaction is eaſily augmented, and for that the remedies ſupplied cannot lodge there, being ſoon waſhed away with ſpittle. But if they ariſe from too hot a quality in the nurſe's milk, care muſt be taken to temper and cool, preſcribing her cool diet, bleeding and purging her alſo, if there be occaſion.

Take lentiles huſked, powder them, and lay it upon the child's gums; or take melidium in flower, half an ounce, and with oil of roſes make a liniment. Alſo waſh the child's mouth with barley and plantain-water, and honey of roſes, or ſyrup of dry roſes, mixing with them a little verjuice, or juice of lemons, as well to looſen and cleanſe the vicious humours which cleave to the inſide of the child's mouth, as to cool thoſe parts which are already over heated. This may be done by means of a ſmall fine rag faſtened to the end of a little ſtick, and dipped therein, wherein the ulcers may be gently rubbed, being careful not to put the child to too much pain, leſt an inflammation make the diſtemper worſe. The child's body muſt alſo be kept open, that the humours being carried to the lower parts, the vapours may not aſcend, as it is uſual for them to do when the body is coſtive, and the excrements too long retained. If the ulcers appear malignant,

let

let ſuch remedies be uſed as do their work ſpeedily, that the equal qualities that cauſe them being thereby inſtantly corrected, their malignity may be prevented; and in this caſe touch the ulcers with plantain-water ſharpened with the ſpirits of vitriol, for the remedy muſt be made ſharp, according to the malignity of the diſtemper. It will not be unneceſſary to purge theſe ill humours out of the whole habit of the child, by giving half an ounce of ſuccory with rhubarb.

SECT. VI. *Of Pains in the Ears, Inflammation, Moiſture, &c.*

THE brain in infants is very moiſt, and hath many excrements which nature cannot ſend out at its proper paſſages; they get often to the ears, and there cauſe pains, flux of blood, with inflammation, and matter with pain; and in children is hard to be known, having no other way to make it known but by conſtant crying; you will alſo perceive them ready to feel their ears themſelves, but will not let the other touch them if they could help it; and ſometimes you may diſcern the parts about the ears to be very red.

Theſe pains, if let alone, are of dangerous conſequences, becauſe they may bring forth watching and epilepſy, for the moiſture breeds worms there, and fouls the ſpungy bones, and by degrees incurable deafneſs.

To prevent all thoſe ill conſequences, allay the pain with all convenient ſpeed, but have a care of uſing ſtrong remedies. Therefore only uſe warm milk about the ears, with the decoction of poppy tops, or oil of violets: to take away the moiſture, the honey of roſes, and let aquamellis be dropped into the ears; or take virgin's honey half an ounce, red wine two ounces, allum, ſaffron, ſalpetre, each a dram; mix them at the fire; or drop in hemp-ſeed oil with a little wine.

SECT. VII. *Of Redneſs and Inflammation of the Buttocks, Groin, and Thighs of a young Child.*

IF there be not great care taken to change and waſh the child's bed as ſoon as it is fouled with the excrements, and to keep the child very clean, the acrimony will be ſure to cauſe redneſs, and beget a ſmarting in the buttocks, groin, and thighs of the child, which, by reaſon of the pain, will afterwards be ſubject to inflammations, which follow the ſooner,

er, through the delicacy and tenderneſs of their ſkin, from which the outward ſkin of the body is in a ſhort time ſeparated and worn away.

The remedy of this is twofold; that is to ſay, firſt, to keep the child cleanly, and in the ſecond place, to take off the ſharpneſs of its urine. As to keeping it cleanly, ſhe muſt be a ſorry nurſe that needs to be taught how to do it, for if ſhe lets it have but dry, clean, and warm beds and clouts, as often and as ſoon as it has fouled and wet them, either by its urine or excrements, it will be ſufficient; and as to the ſecond, the taking off the ſharpneſs of the child's urine, that muſt be done by the nurſe's keeping a cooling diet, that her milk may have the ſame quality; and therefore ſhe ought to abſtain from all things that may heat it. But, beſides theſe, cooling and drying remedies are requiſite to be applied to the inflamed parts; therefore let the parts be bathed with plantain water, with a fourth of lime water added to it, each time the child's excrements are wiped off; and if the pain be very great, let it only be fomented with luke-warm milk. The powder of a poſt to dry it, or a little mill duſt ſtrewed upon the parts affected, may be proper enough; and it is uſed by ſeveral women. Alſo Unguentum Album, or Diapampholigos, ſpread upon a ſmall piece of leather, in form of a plaiſter, will not be amiſs.

But the chief thing muſt be the nurſe's taking great care to wrap the inflamed parts with fine rags when ſhe opens the child, that thoſe parts may not be gathered and pained by rubbing them together.

SECT. VIII. *Of Vomiting in young Children.*

VOMITING in children proceeds ſometimes from too much milk, and ſometimes from bad milk, and is often from a moiſt looſe ſtomach; for as dryneſs retains, ſo looſeneſs lets go. This is for the moſt part without danger in children; and they that vomit from their birth are the luſtieſt; for the ſtomach, not being uſed to meat and milk being taken too much, crudities are eaſily bred, or the milk is corrupted; and it is better to vomit theſe up than to keep them in; but if vomiting laſt long, it will cauſe an atrophy or conſumption for want of nouriſhment.

To remedy this, if it be from too much milk, that which

is omitted is yellow and green, or otherwiſe ill-coloured and ſtinking, in this caſe mend the milk, as has been ſhewed before; cleanſe the child with honey of roſes, and ſtrengthen its ſtomach with ſyrup of milk and quinceys made into an electuary. If the humour be hot and ſharp, give the ſyrup of pomegranates, currants, and coral; and apply to the belly the plaiſter of bread, the ſtomach ceret, or bread dipped in hot wine; or take oil of maſtich, quinceys, mint, wormwood, each half an ounce; of nutmegs, by expreſſion, half a dram, chymical oil of mint, three drops. Coral hath an occult property to prevent vomiting, and is therefore hung about their necks.

SECT. IX. *Of breeding Teeth in young Children.*

THIS is a very great, and yet neceſſary evil in all children, having variety of ſymptoms joined with it; they begin to come forth, not all at a time, but one after another, about the ſixth and ſeventh month; the fore teeth coming firſt, then the eye-teeth, and laſt of all the grinders: the eye-teeth cauſe more pain to the child than any of the reſt, becauſe they have a very deep root, and a ſmall nerve, which hath communication to that which makes the eye move. In the breeding of their teeth, firſt they feel an itching in their gums, then they are pierced as with a needle, and pricked by the ſharp bones, whence proceed great pains, watching and inflammation of the gums, fever, looſeneſs, and convulſions, eſpecially when they breed their eye-teeth.

The ſigns when children breed their teeth are theſe; 1. It is known by their time, which is uſually about the ſeventh month. 2. Their gums are ſwelled, and they feel a great heat there, with an itching, which makes them put their fingers in their mouth to rub them, from whence a moiſture diſtils down into the mouth, becauſe of the pain they feel there. 3. They hold the nipple faſter than before. 4. The gum is white where the tooth begins to come; and the nurſe in giving them ſuck finds the mouth hotter, and that they are much changed, crying every moment, and can not ſleep, or but very little at a time. The fever that follows breeding of teeth comes from choleric humours, inflamed by

by watching, pain, and heat. And the longer teeth are breeding, the more dangerous it is, ſo that many in the breeding of them die of fevers and convulſions.

For remedy, two things are to be regarded; one is, to preſerve the child from the evil accidents that may happen to it by reaſon of the great pain; the other, to aſſiſt as much as may be the cutting of the teeth, when they can hardly cut the gums themſelves.

For the firſt of theſe, i. e. the preventing theſe accidents to the child, the nurſe ought to take great care to keep a good diet, and to uſe all things that may cool and temper her milk, that ſo a fever may not follow the pain of the teeth. And to prevent the humour from falling too much upon the inflamed gums, let the child's belly be kept always looſe by gentle clyſters, if he be bound; though oftentimes there is no need of them, becauſe they are at thoſe times uſually troubled with a looſeneſs, and yet for all that clyſters may not be improper neither.

As to the other, which is to aſſiſt in cutting of the teeth, that the nurſe muſt do from time to time, mollifying and looſening them, by rubbing them with her finger dipped in butter of honey, or let the child have a virgin's wax candle to chew upon: or anoint the gums with the mucilage of quince made with mallow water, or with the brains of a hare; alſo foment the cheeks with the decoction of Althæa, and camomile flower and dill, or with the juice of mallows and freſh butter. If the gums are inflamed, add juice of night ſhade and lettuce. I have already ſaid, the nurſe ought to keep a temperate diet. I will now add, that barley broth, water gruel raw eggs, prunes, lettuce, and endive, are good for her; but let her avoid ſalt, ſharp, biting, and peppered meats, and wine.

Sect. X. *Of the Flux of the Belly, or Looſeneſs in Infants.*

IT is very common for infants to have the flux of the belly, or looſeneſs, eſpecially upon the leaſt indiſpoſition; nor is it to be wondered at, ſeeing their natural moiſtneſs contributes ſo much thereto; and if it be extraordinary violent, ſuch are in a better ſtate of health than thoſe that are bound. This flux, if violent, proceeds from divers cauſes; as, 1. From breeding of teeth, and is then com-

monly attended with a fever, in which the concoction is hindered, and the nouriſhment corrupted. 2. From watching. 3. From pain. 4. From ſtirring of the humours by a fever. 5. When they ſuck or drink too much in a fever. Sometimes they have a flux without breeding of teeth, from outward cold in the guts or ſtomach, that obſtructs concoction. If it be from teeth it is eaſily known, for the ſigns in breeding of teeth will diſcover it If it be from external cold, there are ſigns of other cauſes. If from a humour flowing from the head, there are ſigns of a catarrh, and the excrements are frothy. If crude and raw humours are voided, there is wind belching, and phlegmatic excrements. If they be yellow, green, and ſtink, the flux is from a hot and ſharp humour. It is beſt in breeding of teeth when the belly is looſe, as I have ſaid before; but if it be too violent, and you are afraid it may end in a conſumption, it muſt be ſtopped, and if the excrements that are voided be black, attended with a fever, it is very bad.

The remedy in this caſe has a principal reſpect to the nurſe, and the condition of the milk muſt chiefly be obſerved; the nurſe muſt be cautioned that ſhe eat no green fruit, nor things of hard concoction. If the child ſuck not, remove the flux with purges, ſuch as leave a blooding quality behind them; as ſyrup of honey of roſes, or a clyſter. Take the decoction of millium myrobolans, each two or three ounces, with an ounce or two of ſyrup of roſes, and make a clyſter. After cleanſing, if it proceed from a hot cauſe, give ſyrup of dried roſes, quinceys, myrtles, with a little Sanguis Draconis. Alſo anoint with oil of roſes, myrtles, maſtich, each two drams, with oil of myrtles and wax, make an ointment. Or, take red roſes, moulin, each a handful, cypreſs roots, two drams; make a bag, boil it in red wine, and apply it to the belly. Or, uſe the plaiſter of bread, or ſtomach ointment. If the cauſe be cold, and the excrements white, give ſyrup of maſtich, and quinceys, with mint-water. Uſe outwardly mint, maſtich, cummin: or take roſe ſeeds an ounce, cummin, anniſeeds, each two drams: with oil of maſtich, wormwood, and wax, make an ointment.

SECT. XI. *Of the Epilepſy, and Convulſions in Children.*

THIS is a diſtemper that is the death of many young children, and proceeds from the brain firſt, as when the humours are bred in the brain that cauſe it, either from the parents, or from vapours, or bad humours that twitch the membranes of the brain; it is alſo ſometimes cauſed from other diſtempers, and from bad diet; likewiſe the toothach, when the brain conſents, cauſes it, and ſo does a ſudden fright. As to the diſtemper itſelf, it is manifeſt, and well enough known where it is; and as to the cauſe whence it comes, you may know by the ſigns of the diſeaſe whether it comes from bad milk, or worms, or teeth: if theſe are all abſent, it is certain that the brain is firſt affected; if it comes with the ſmall-pox or meaſles, it ceaſeth when they come forth, if nature be ſtrong enough.

For the remedy of this grievous and often mortal diſtemper, give the following powder to prevent it to a child as ſoon as it is born: Take male piony roots, gathered in the decreaſe of the moon, a ſcruple, with leafgold make a powder; or take piony-roots a dram, piony-ſeeds, miſſeltoe of the oak, elk's hoof, man's ſkull, amber, each a ſcruple, muſk two grains; make a powder. The beſt part of the cure is taking care of the nurſe's diet, which muſt not be diſorderly by any means. If it be from corrupt milk, provoke a vomit, to do which hold down the tongue, and put a quill dipped in ſweet almonds down the throat. If it comes from worms, give things as will kill the worms. If there be a fever, reſpect that alſo, and give coral ſmaraged and elk's hoof. In the fit, give epileptic water, as lavendar water, and rub with oil of amber, or hang a piony-root, elk's hoof, and ſmaraged, about the neck.

As to a convulſion, it is when the brain labours to caſt out that which troubles it: the matter is in the marrow of the back, and fountain of the nerves; it is a ſtubborn diſeaſe, and often kills.

For remedy whereof, in the fit, waſh the body, eſpecially the back bone, with decoction of Althæa, lilly-roots, piony and camomile flowers, and anoint it with man's and gooſe greaſe, oils of worms, orris, lillies, foxes, turpentine, maſtich, ſtorax and calamint. The ſunflower is alſo very good, boiled in water, to waſh the child.

PART II.

Containing proper and ſafe Remedies for the curing of all thoſe Diſtempers that are peculiar to the Female Sex, and eſpecially thoſe that have Obſtruction to the bearing of Children.

HAVING finiſhed the firſt part of this book, and therein I hope amply made good my promiſe to the reader, I am now come to treat of the diſtempers peculiar to the female ſex, in which it is not my deſign to enlarge; as to treat of all the diſtempers they are incident to, but thoſe only to which they are moſt ſubject when in a breeding condition, and thoſe that keep them from being ſo: for each of which diſtempers I have laid down ſuch proper and ſafe remedies, as with the divine bleſſing may be ſufficient to repel them; and ſince, as amongſt all the diſeaſes to which human nature is ſubject, there is none that more diametrically oppoſes the very end of our creation, and the deſign of nature in the formation of different ſexes, and the power thereby given us for the work of generation, than that of ſterility or barrenneſs, which, where it prevails, renders the moſt accompliſhed midwife but a uſeleſs perſon, and deſtroys the deſign of our book; I think therefore barrenneſs is an effect that deſerves our firſt conſideration.

CHAP. I.

Of Barrenneſs; its ſeveral kinds, with proper Remedies againſt it; and the Signs of Inſufficiency both in Men and Women.

SECT. I. *Of Barrenneſs in general.*

AS there is no general rule but will admit of ſome exception againſt this ſecond part; for though I have promiſed to treat herein only of diſeaſes peculiar to the female ſex, yet this chapter will engage me to ſpeak of a defect in men barrenneſs being an effect incident to them alſo; and therefore it is ſo neceſſary to be handled with reſpect

to

to men as well as women, that without treating of it ſo, I ſhall not be able to make good the old proverb of ſetting the ſaddle on the right horſe.

Having premiſed this, and thereby anticipated an objection, I ſhall now proceed to the ſubject of this chapter, which is barrenneſs.

Barrenneſs is either natural or accidental.

Natural barrenneſs is, when a woman is barren, though the inſtruments of generation are perfect both in herſelf and huſband, and no prepoſterous or diabolical courſe uſed to cauſe it, and neither age nor diſeaſe, nor any natural defect hindering, and yet the woman remains naturally barren, and conceives not.

Now this may proceed from a natural cauſe; for if the man and woman be of one complexion, they ſeldom have children; and the reaſon is clear, for the univerſal courſe of nature being formed by the Almighty of a compoſition of contraries, cannot be increaſed by a compoſition of likes; and therefore, if the conſtitution of the woman be hot and dry as well as of the man, there can be no conception; and if, on the contrary, the man ſhould be of a cold and moiſt conſtitution as well as the woman, the effect would be the ſame; and this barrenneſs is purely natural. The only way to help it is for people before they marry to obſerve each others conſtitution and complexion, if they deſign to have children. If their complexions and conſtitutions be alike they are not fit to come together for the diſcordant nature makes the only harmony in the work of generation.

Another natural cauſe of barrenneſs is want of love between the man and wife. Love is that vital principle that ought to inſpire each organ in the act of generation, or elſe 'twill be ſpiritleſs and dull; for if their heart be not united in love, how ſhould their ſeed unite to cauſe conception; and this is ſufficiently evinced in that there never follows a conception on a rape; therefore if men and women deſign to have children, let them live ſo that their hearts as well as their bodies may be united, or elſe they may miſs of their expectations.

A third cauſe of natural barrenneſs is the letting of virgins blood in the arm before their natural courſes are come down, which is uſually in the fourteenth and fifteenth years of their

age; ſometimes perhaps before the thirteenth, but never before the twelfth. And becauſe uſually they are out of order, and indiſpoſed before their purgations come down, their parents run to the doctor to know what is the matter; and he then preſcribes opening a vein in the arm, ſeeing it was fulneſs of blood which was the cauſe of offending, and this makes her well at preſent; and when the young virgin happens to be in the ſame diſorder again, the mother ſtrait runs to the ſurgeon, and he directly uſes the ſame remedy; and by theſe means the blood is diverted from its proper channel, that it comes not down the womb as in another woman; and ſo the womb dries up, and the woman is for ever barren. The way to prevent this is to let no virgin blood in the arm before her courſes comes down well; but if there be occaſion, let her blood in the foot; for that will bring the blood downwards, and by that means provoke the menſtrues to come down.

Another cauſe of natural barrenneſs is the debility in copulation; if perſons perform not that act with all the heat and ardour that nature requires, they may as well let it alone, and expect to have children without it; for frigidity and coldneſs never produces conception. Of the cure of this we will ſpeak by and by, after I have ſpoken of accidental barrenneſs, which is what is occaſioned by ſome morbific matter or infirmity upon the body, either of the man or the woman, which being removed, they become fruitful. And ſince (as I have before noted) the firſt and great law of the creation was to increaſe and multiply, and barrenneſs is the direct oppoſition to the law, and fruſtrates the end of our creation; and that is a great affliction to divers to be without children, and often cauſes man and wife to have hard thoughts one of another, each party thinking the cauſe not in them. I ſhall here, for the ſatisfaction of well-meaning people, ſet down the ſigns and cauſes of inſufficiency both in men and women; premiſing then firſt, that when people have no children, they muſt not preſently blame either party, for neither may be in fault, but perhaps God ſees it not good (for reaſons beſt known unto himſelf) to give them any: of which we have divers inſtances in hiſtory. And though the Almighty in the production of nature works by natural means, yet where he with-holds his bleſſing natural means are ineffectual; for it is the bleſſing

which

which is the power and energy by which nature brings her productions forth.

SECT. II. *Signs and Cauſes of Inſufficiency in Men.*

ONE cauſe may be in ſome viciouſneſs in the yard, as if the ſame be crooked, or any ligaments thereof diſtorted and broken, whereby the ways and paſſages through which the ſeed ſhould flow, come to be ſtopped or vitiated.

Another cauſe may be too much weakneſs of the yard, and tenderneſs thereof, ſo that it is not ſtrongly enough erected to inject ſeed into the womb; for the ſtrength and ſtiffneſs of the yard very much conduces to conception, by reaſon of the forcible conjection of the ſeed.

Alſo if the ſtones have received any hurt, ſo that they cannot exerciſe the proper gift in producing ſeed, or if they be oppreſſed with any inflammation or tumour, wound, or ulcer, or drawn up within the belly, and not appearing outwardly, theſe are ſigns of inſufficiency and cauſes of barrenneſs.

Alſo a man may be barren by reaſon of the defect of ſeed: as firſt, if he caſt forth no ſeed at all, or leſs in ſubſtance than is needful. Or ſecondly, if the ſeed be vicious, or unfit for generation, as on the one ſide, it happens in bodies that are groſs and fat, the matter of it being defective, and on the other ſide too much leanneſs, or continual waſting or conſumption of body, deſtroys ſeed; nature turning all the matter and ſubſtance thereof into nutriment of the body.

Too frequent copulation is alſo one great cauſe of barrenneſs in men; for it attracteth the ſeminal moiſture from the ſtones before it is ſufficiently prepared and concocted; ſo if any one by daily copulation do exhauſt and draw out all the moiſture of the ſeed, then do the ſtones draw the moiſt humours from the ſuperior veins into themſelves; and ſo having but a little blood in them, they are forced of neceſſity to caſt it out raw and unconcocted, and thus the ſtones are violently deprived of the moiſture of their veins, and the ſuperior veins from all the other parts of the body, for their proper nouriſhment, thereby depriving the body of its vital ſpirits; and therefore no wonder that thoſe that uſe immoderate copulation are very weak in their bodies; ſeeing their whole body is thereby deprived of their beſt and

purest

pureſt blood, and of the ſpirit, inſomuch that many who have been too much addicted to that pleaſure have killed themſelves in the very act; and therefore it is no wonder if ſuch unconcocted and undigeſted ſeed be unfit for generation.

Gluttony, drunkenneſs, and other exceſſes, do ſo much hinder men from fruitfulneſs, that it makes them unfit for generation.

But among other cauſes of barrenneſs in men, this alſo is one that makes them barren, and almoſt of the nature of eunuchs, and that is the inciſion, or the cutting of their veins behind their ears, which in caſe of diſtempers is oftentimes done; for according to the opinion of moſt phyſicians and anatomiſts, the ſeed flows from the brain by thoſe veins behind the ears more than from any other part of the body. From whence it is very probable that the tranſmiſſion of the ſeed is hindered by the cutting of the veins behind the ears, ſo that it cannot deſcend at all to the teſticles, or come thither very crude and raw. And thus much for the ſigns and cauſes of barrenneſs in men.

SECT. III. *Signs and Cauſes of Inſufficiency, or Barrenneſs in Women.*

ALTHOUGH there are many cauſes of the barrenneſs of women, yet the chief and principal are internal, reſpecting either the privy parts, the womb, or menſtruous blood.

Therefore Hippocrates ſaith (ſpeaking of the either eaſy or difficult conception of women) the firſt conſideration is to be had of their ſpecies, for little women are more apt to conceive than great; ſlender than groſs; white and fair, than ruddy and high coloured; black than wan; thoſe that have their veins conſpicuous are more apt to conceive than others; but to the very fleſh is evil: to have great ſwelled breaſts is good.

The next thing to be conſidered, is the monthly purgations, whether they have been duly every month, and whether they flow plentifully, and are of a good colour, and whether they have been equal every month.

Then the womb or place of conception is to be conſidered, it ought to be clean and ſound, dry and ſoft; not retracted

or

or drawn up; not prone, nor deſcending downwards, not the mouth thereof turned away, nor too cloſe ſhut. But to ſpeak more particularly:

The firſt parts to be ſpoken of are the pudenda, or privities, and the womb; which parts are ſhut and incloſed, either by nature or againſt nature: and from hence ſuch in women are called imperforæ; as in ſome women the mouth of their womb continues compreſſed, or cloſed up, from the time of their birth, until the coming down of their courſes, and then on a ſudden when their terms preſs forward to purgation, they are moleſted with great and unuſual pains; ſome of theſe break of their own accord, others are diſſected and opened by phyſicians, others never break at all, and it brings death.

All theſe Aths particularly handles, ſhewing that the womb is ſhut three manner of ways, which hinders conception. And the firſt is, when the lips of the pudenda grow or cleave together; the ſecond is, when there are certain membranes growing in the middle part of the matrix within; the third is, when (though the lips and boſom of the pudenda may appear fair and open) the mouth of the womb may be quite ſhut up; and which are occaſions of barrenneſs, in that they hinder both the uſe of man, the monthly courſes, and conception.

But amongſt all the cauſes of barrenneſs in women the greateſt is in the womb which is the field of generation; and if this field be corrupt, it is in vain to expect any fruit, let it be ever ſo well ſown, for it may be unfit for generation, by reaſon of many diſtempers to which it is ſubject; as for inſtance, over much heat, and over much cold: for women, whoſe wombs are too thick and cold, cannot conceive, becauſe coldneſs extinguiſhes the heat of the human ſeed. Immoderate moiſture of the womb alſo deſtroys the ſeed of man, and makes it ineffectual, as corn ſown in ponds and marſhes; and ſo does over much dryneſs in the womb, ſo that the ſeed periſheth for want of nutriment. Immoderate heat of the womb is alſo a cauſe of barrenneſs, for it ſcorcheth up the ſeed, as corn ſown in the drought of ſummer; for immoderate heat hurts all the parts of the body, for no conception can live in the woman.

And when unnatural humours are engendered as too much phlegm, tympanies, wind, water, worms, or any ſuch evil

humours

humours abounding contrary to nature, it cauſes barrenneſs, as does all the terms not coming down in due order, as I have already ſaid.

A woman may alſo have other aceidental cauſes of barrenneſs, (at leaſt ſuch as may hinder her conception) as ſudden frights, anger, grief, and perturbation of the mind; too violent exerciſes, as leaping, dancing, running after copulation, and the like. But I will now add ſome ſigns by which theſe things may be known.

If the cauſe of barrenneſs be in the man through overmuch heat in his ſeed, the woman may eaſily feel that in receiving it.

If the nature of the woman be too hot, and ſo unfit for conception, it will appear by having her terms very little, and the colour inclining to yellowneſs, ſhe is alſo very hafty, choleric, and crafty, her pulſe beats very ſwift, and ſhe is very deſirous of copulation.

To know whether the fault is in the man or the woman, ſprinkle the man's urine upon a lettice leaf, and the woman's upon another, and that which dries away firſt is unfruitful. Alſo take five wheaten corns, and ſeven beans, put them into an earthen pot, and let the party make water therein. Let this ſtand ſeven days, and if in that time they begin to ſprout, then the party is fruitful; but if they ſprout not, then the party is barren, whether it be man or woman. This is a certain ſign.

There are ſome that make this experiment of a woman's fruitfulneſs: Take myrrh, red ſtorax, and ſome odoriferous things, and make a perfume of it, which let the woman receive into the neck of the womb through a funnel: if the woman feels the ſmoke aſcend through her body to the noſe, then ſhe is fruitful, otherwiſe barren. Some alſo take garlic and beer, and let the woman lie on her back upon it, and if ſhe feel the ſcent thereof to her noſe it is a ſign of fruitfulneſs.

Culpepper and others alſo give a great deal of credit to the following experiment.

Take a handful of barley, and ſteep half of it in the urine of the man, and the other half in the urine of the woman, for the ſpace of four and twenty hours, and then take it out, and ſet the man's by itſelf, and the woman's by itſelf; ſet it in a flower pot, or ſome other thing where you may let it

it dry; then water the man's every morning with his own urine, and the woman's with her's; and that which grows firſt is the moſt fruitful; and if one grow not at all that party is naturally barren.

But having now ſpoken enough of the diſeaſe, it is high time to aſſign the cure.

If barrenneſs proceeds from ſtoppage of the menſtrues, let the woman ſweat, for that opens the parts; and the beſt way to ſweat is in a hot houſe. Then let the womb be ſtrengthened by drinking a draught of white wine, wherein a handful of ſtinking arrack, firſt bruiſed, has been boiled; for by a ſecret magnetic virtue it ſtrengthens the womb, and by a ſympathetic quality removes any diſeaſe thereof. To which add alſo a handful of vervain, which is very good to ſtrengthen both the womb and head, which are commonly afflicted together by ſympathy. Having uſed theſe two or three days, if they come not down, take of calamint, penny-royal, thyme, bettony, dittany, burnet, feverfew, mugwort, ſage, piony-roots, juniper-berries, half a handful of each, or ſo many as can be got; let all theſe be boiled in beer, and taken for her ordinary drink.

Take one part of the gentian root, two parts of centory, diſtil them with ale in an anielbick, after you have bruiſed the gentian-roots, and infuſed them well. This water is an admirable remedy to provoke the terms. But if you have not this water in readineſs, take a dram of centory, and half a dram of gentian roots bruiſed, boiled in poſſet drink, and drink a draught of it at night going to bed. Seed of wild navew beaten to powder, and a dram of it taken in the morning in white-wine, alſo is very good; but if it anſwers not, ſhe muſt be let blood in the legs. And be ſure you adminiſter your medicines a little before the full of the moon, or between the new and full moon, by no means in the wane of the moon; if you do, you will find them ineffectual.

If barrenneſs proceed from the overflowing of the menſtrues, then ſtrengthen the womb, as you were taught before, afterwards anoint the reins of the back with oil of roſes, oil of myrtle, oil of quinceys every night, and then wrap a piece of white bays about your reins, the cotton ſide next the ſkin, and keep the ſame always to it. But above all, I recommend this medicine to you. Take comfrey leaves or roots, and clown wound wort, of each a handful, bruiſe them well

and

and boil them in ale, and drink a good draught of it now and then, or take cinnamon, caſſia lignea, opium, of each two drams, myrrh, white pepper, galbanum, of each one dram, diſſolve the gum and opium in white wine: beat the reſt into powder; then make into pills, by mixing of them together exactly, and let the patient take two pills every night going to bed; but let the pills not exceed fifteen grains.

If barrenneſs proceed from a flux of the womb, the cure muſt be according to the cauſe producing it, or which the flux proceeds from, which may be known by its ſigns: for a flux of the womb being a continual diſtillation from it for a long time together, the colour of what is voided ſhews what humour it is that offends: in ſome it is red, and that proceeds from blood putrified: in ſome it is yellow, and that denotes choler; in others white and pale, and that denotes phlegm. If pure blood comes out, as if a vein were opened, ſome corroſion or gnawing of the womb is to be feared. All them are known by theſe ſigns.

The place of the conception is continually moiſt with the humours, the face is ill-coloured, the party loathes meat, and breathes with difficulty, the eyes are much ſwollen, which is ſometimes without pain. If the offending humour be pure blood, then you muſt let blood in the arm, and the cephalic vein is fitteſt to draw back the blood, and then let the juice of plantain and comfrey be injected into the womb. If phlegm be the cauſe, let cinnamon be a ſpice uſed in all her meats and drinks; and let her take a little Venice treacle or mithridate every morning. Let her boil burnet, mugwort, feverfew, and vervain, in all her broths. Alſo half a dram of myrrh taken every morning, is an excellent remedy againſt this malady. If choler be the cauſe, let her take burrage, bugloſs, red roſes, endive, and ſuccory roots, lettuce and white poppy ſeed, of each a handful; boil theſe in white wine till one half be waſted; let her drink half a pint every morning; to which half a pint add ſyrup of peach-flowers and ſyrup of cichony, of each an ounce, with a little rhubarb, and this will gently purge her. If it proceeds from putrified blood, let her be blooded in the foot, and then ſtrengthen the womb, as I have directed in ſtopping of the menſtrues.

If barrenneſs be occaſioned by the falling out of the womb as ſometimes happens, let her apply ſweet ſcents to her noſe, ſuch

ſuch as civit, galbanum, ſtorax, calamitis, wood of aloes, and ſuch other things as are of that nature: and let her lay ſtinking things to the womb, ſuch as aſafœtida, oil of amber, or the ſmoke of her own hair being burnt; for this is a certain truth, that the womb flies from all ſtinking, and to all ſweet things. But the moſt infallible cure in this caſe is this; take a common burdoc leaf (which you may keep dry if you pleaſe all the year) apply this to her head, and it will draw the womb upwards. In fits of the mother, apply it to the ſole of her feet, and it will draw the womb downwards. Bur ſeed, beaten into a powder, draws the womb which way you pleaſe, according as it is applied.

If barrenneſs proceeds from a hot cauſe, let the party take whey, and clarify it, then boil plantain leaves and roots in it, and drink it for her ordinary drink. Let her alſo inject the juice of plantain into the womb with a ſyringe; if it be in winter, when you can get the juice, make a ſtrong decoction of the leaves and roots in water, and inject that up with a ſyringe; but let it be but blood-warm, and you will find this medicine of great efficacy. And further, to take away barrenneſs proceeding from hot cauſes, take often conſerve of roſes, cold lozenges made of tragacanth, the confections of traiſantali, and uſe to ſmell the camphire, roſe water, and ſaunders. It is alſo good to bleed the baſilica, or liver-vein, and take four or five ounces of blood, and then take this purge: take electuarum de epithymo de ſucco roſarum, of each two drams and a half, clarified whey four ounces; mix them well together, and take it in the morning faſting; ſleep after it about an hour and a half, and faſt four hours after it, and about an hour before you eat any thing drink a good draught of whey. Alſo take lilly water, four ounces; mandragora water, one ounce, ſaffron half a ſcruple; beat the ſaffron to powder, and mix it with the waters, and drink them warm in the morning: uſe this eight days together.

Some excellent Remedies againſt Barrenneſs, and to cauſe Fruitfulneſs.

TAKE broom flowers, ſmallage, parſley ſeed, cummin, mugwort, feverfew, of each half a ſcruple; aloes half an ounce; India ſalt, ſaffron, of each half a dram; beat and mix them well together, and put it to five ounces of feverfew-water warm, ſtop it up cloſe, and let it ſtand and dry in

a warm place, and thus do two or three times one after another, then make each dram into ſix pills, and take one of them every other day before ſupper.

For a purging medicine againſt barrenneſs; Take conſerve of benedicta lax, one quarter of an ounce: depſillo, three drams: electuary de ſucco roſarum, one drain; mix them together with feverfew-water, and drink it in the morning betimes. About three days after the patient hath taken the purge, let her be let blood four or five ounces in the median, or common black vein in the right foot; and then take five days, one after another, filed ivory, a dram and a half in feverfew water; and during the time, let her ſit in the following bath an hour together morning and night: Take wild yellow rapes, daucus, balſam wood and fruit, aſhkeys, of each two handfuls, red and white behen, broom flowers, of each a handful; muſk three grains, amber, ſaffron, of each a ſcruple; boil all in water ſufficiently; but the muſk, ſaffron, amber, and broom flowers, put them into the decoction after it is boiled and ſtrained.

A confection very good againſt barrenneſs: Take piſtachia, pingles, eringoes, of each half an ounce; ſaffron one dram; lignum aloes, gallingade, mace, coriophilla, balm flowers, red and white behen, of each four ſcruples; ſhaven ivory, caſſia bark, of each two ſcruples; ſyrup of confected ginger twelve ounces, white ſugar ſix ounces; decoct all theſe well together in twelve ounces of balm water, and ſtir it well together; then put to it muſk and amber, of each a ſcruple; take thereof the quantity of a nutmeg three times a day, in the morning, an hour before noon, and an hour after ſupper.

But if the cauſe of barrenneſs either in man or woman be through ſcarcity or diminution of the natural ſeed, then ſuch things are to be taken as do increaſe the ſeed, and incite or ſtir up to venery, and further conception, which I ſhall here ſet down, and then conclude this chapter of barrenneſs.

For this, yellow rape ſeed baked in bread is very good; alſo young fat fleſh not too much ſalted; alſo ſaffron, the tails ſtincus, and long pepper prepared in wine. But ſuch ſour, ſharp, dougy, and ſlimy meats, long ſleep after meat with ſurfeiting and drunkenneſs, and as much as they can keep themſelves from ſorrow.

Theſe things following increaſe the natural ſeed, and ſtir up venery, and recover the ſeed again when it is loſt, viz. eggs,

eggs, milk, rice boiled in milk, ſparrow's brains, fleſh, bones and all; the ſtones and pizzles of bulls, bucks, rams, and bears; alſo cock-ſtones, lamb ſtones, partridges, quails, and pheaſant eggs; and this is an undeniable aphoriſm, that whatever any creature is addicted unto they move or incite the woman or man that eats them to the like; and therefore partridges, quails, ſparrows, &c. being extremely addicted to venery, they work the ſame effect in thoſe men and women that eat them. Alſo take notice, that in what part of the body the faculty which you would ſtrengthen lies, take the ſame part of the body of another creature, in whom the faculty is ſtrong, as a medicine. As for inſtance, the procreative faculty lies in the teſticles, therefore cock ſtones, lamb ſtones, &c. are proper to ſtir up venery. I will alſo give you another general rule: all creatures that are fruitful being eaten, make them fruitful that eat them; as crabs, lobſters, prawns, pigeons, &c. The ſtones of a fox dried, and beaten to powder, and a dram taken in the morning in ſheeps milk, and the ſtones of a boar taken in the like manner, are very good. The heart of a male quail carried about the man, and the heart of a female quail carried about the woman, cauſeth natural love and fruitfulneſs. Let them alſo that would increaſe their ſeed eat and drink of the beſt as much as they can: for, *ſine cerere et libero friget Venus*, is an old proverb; which is, without good meat and good drink Venus will be frozen to death.

Pottages are good to increaſe the ſeed, ſuch as are made of beans, peaſe, and lupines, and mix the reſt with ſugar. French beans, wheat ſodden in broth, anniſeed, alſo onions ſtewed, garlics, leeks, yellow rapes, freſh bugwort roots, oringo roots confected, ginger confected, &c. Of fruits, hazel nuts, cypreſs-nuts, piſtachia, almonds, and Marchpanes made thereof. Spices good to increaſe ſeed, are cinnamon, cardamum, galengal, long pepper, cloves, ginger, ſaffron, aſafœtida taken a dram and a half in good wine, is very good for this purpoſe.

The weakneſs and debility of a man's yard being a great hindrance to procreation, let him to ſtrengthen it uſe the following ointments: Take wax, oil of bevercod, majoram gentle, and oil of coſtus, of each a like quantity, mix it into an ointment, and put to it a little muſk, and with it anoint the yard, cods, &c. Take of houſe emmets three drams, oil

of white ſefannum, oil of lillies, of each an ounce; pound and bruiſe the ants, and put them to the oil, and let them ſtand in the ſun ſix days, then ſtrain out the oil, and add to it euphorbium one ſcruple, pepper and rue, of each one dram, muſtard ſeed half a dram. Set this again altogether in the ſun two or three days, then anoint the inſtruments of generation therewith. But ſo much for this chapter.

CHAP. II.

The Diſeaſes of the Womb.

I HAVE already ſaid, that the womb is the field of generation; and if this field be corrupted it is in vain to expect any fruit though it be ever ſo well ſown; it is therefore, not without reaſon, that I intend in this chapter to ſet down the ſeveral diſtempers to which the womb is obnoxious, and proper and ſafe remedies againſt them.

SECT. II. *Of the hot Diſtempers of the Womb.*

THIS diſtemper conſiſts in the exceſs of heat; for the heat of the womb is neceſſary for conception, but if it be too much, it nouriſheth not the ſeed, but diſperſeth its head, and hinders the conception: this preternatural heat is ſometimes from the birth, and makes them barren; but if it be accidental, it is from hot cauſes that bring the heat and the blood to the womb: it ariſes alſo from internal and external medicines, and from too much hot meat, drink, and exerciſe. Thoſe that are troubled with this diſtemper have but few courſes: and thoſe yellow, black, burnt or ſharp, have hair betimes on their privities; they are very prone to luſt, and are ſubject to the headach, and abound with choler. And when the diſtemper is ſtrong upon them, they have but few terms, and out of order, being bad and hard to flow, and in time they become hypochondriacs, and for the moſt part barren, having ſometimes a frenzy of the womb.

The remedy is to uſe coolers, ſo that they offend not the veſſels that muſt be open for the flux of the terms. Therefore inwardly uſe coolers, ſuch as ſuccory, endive, violets, water-lillies, ſorrel, lettuce, ſaunders, and ſyrups, and conſerves made thereof. Alſo take conſerve of ſuccory, violets, water-

water-lillies, burrage, each an ounce; conſerve of roſes half an ounce, diamargation friged diatriaſcantal, each half a dram; and with ſyrup of violets, or juice of citrons, make an electuary. For outward applications make uſe of ointment of roſes, violets, water-lillies, gourds, Venus-narvel applied to the back and loins.

Let the air be cool, her garments thin, and her meat endive, lettuce, ſuccory, and barley. Give her no hot meats, nor ſtrong wine, unleſs mixed with water. Reſt is good for her, but ſhe muſt abſtain from copulation, though ſhe may ſleep as long as ſhe will.

SECT. III. *Of the cold Diſtempers of the Womb.*

THIS diſtemper is the reverſe of the foregoing, and equally an enemy to generation, being cauſed by a cold quality abounding to excels, and proceeds from a too cold air, reſt, idleneſs, and cooling medicines. It may be known by an averſion to venery, and taking no pleaſure in the act of copulation when they ſpend their ſeed. Their terms are phlegmatic, thick, and ſlimy, and do not flow as they ſhould. The womb is windy, and the ſeed crude and wateriſh. It is the cauſe of obſtructions and barrenneſs, and hard to be cured.

For the cure of this diſtemper uſe this water: Take galengal, cinnamon, nutmeg, mace, cloves, each two drams; ginger, cubeds, zedory, cardamum, each an ounce, grains of Paradiſe, long pepper, each half an ounce; beat them, and put them into ſix quarts of wine for eight days; then add ſage, mint, balm, motherwort, each three handfuls. Let them ſtand eight days more, then pour off the wine, and beat the herbs and the ſpices, and then pour on the wine again, and diſtil them. Or you may uſe this: Take cinnamon, nutmegs, cloves, mace, ginger, cubeds, cardamums, grains of Paradiſe, each an ounce and a half; galengal ſix drams, long-pepper half an ounce, zedory five drams, bruiſe them, and add ſix quarts of wine; put them into a cellar nine days, daily ſtirring them; then add of mint two handfuls, and let them ſtand fourteen days, pour off the wine and bruiſe them, and then pour on the wine again, and diſtil them. Alſo anoint with oil of lillies, rue, angelica, bays, cinnamon, cloves, mace and nutmeg. Let her diet and air be warm;

her meat of eaſier concoction, ſeaſoned with anniſeed, fennel and thyme, and let her avoid raw fruits and milk diets.

SECT. IV. *Of the Inflation of the Womb.*

THE inflation of the womb is a ſtretching of it by wind, called by ſome a windy mole; the wind proceeding from a cold matter, whether thick or thin, contained in the veins of the womb, by which the weak heat thereof is overcome, and it either flows thither from other parts, or is gathered there by cold meats or drinks: cold air may be a procuring cauſe of it alſo, as women that lie in are expoſed to it. The wind is contained either in the cavity of the veſſels of the womb, or between the tunicles, and it may be known by a ſwelling in the region of the womb, which ſometimes reaches to the navel, loins, and diaphragma; and it riſes and abates as the wind increaſeth or decreaſeth. It differs from the dropſy, in that it never ſwells ſo high; and that neither the phyſician nor midwife may take it for a conception, let them obſerve the ſigns of women with child laid down in the firſt part of this book; and if one ſign be wanting, they may ſuſpect it to be an inflation, of which this is a farther ſign, that in conception the ſwelling ſtill increaſeth, and ſometimes decreaſeth; alſo if you ſtrike upon the belly, in an inflation, there will be a noiſe, but not ſo in caſe there be a conception. It alſo differs from a mole, becauſe in that there is a weight and hardneſs in the belly; and when they move from one ſide to another, they feel a weight which moveth; but not ſo in this. If the inflation be without the cavity of the womb, the pain is greater and more extenſive, nor is there any noiſe, becauſe the wind is more pent up.

This diſtemper is neither of a long continuance, nor dangerous, if looked after in time; and if it be in the cavity of the womb, is more eaſily expelled. To which purpoſe give her diaphnicon, with a little caſtor, and ſharp clyſters that expel wind. If this diſtemper happen to a woman in travail let her not purge after delivery, nor bleed, becauſe it is from a cold matter; but if it come after child-bearing, and her terms come down ſufficiently, and that ſhe has fulneſs of blood, let the Saphæna vein be opened; after which let her take the following electuary: take conſerve of betony and roſemary, of each an ounce and half; candied eringoes, citron peels

peels candied, each half an ounce, Diacimium, diagalengal. each a dram, oil of anniſeed ſix drops, and with ſyrup of citrons make an electuary. For outward applications make a cataplaſm of rue, mugwort, camomile, dill, calamints, new penny-royal; thyme, with oil of rue, keir, and camomile; and let the following clyſter, to expel wind, be put into the womb; Take agnus caſtus, rye, calamint, each a handful; anniſeed, caſtus, cinnamon, each two drams, boil them in wine to half a pint. She may likwiſe uſe ſulphur, baths and ſpaw waters, both inward and outward, becauſe they expel wind.

SECT. V. *Of a Dropſy in the Womb.*

THIS is another morbific effect of the womb, proceeding from water, as that before mentioned did from wind; by which the belly is ſo ſwelled, that it deceives many, cauſing them to think themſelves with child, when indeed they are not; being no other than an unnatural ſwelling raiſed by the gathering together of waters, from moiſture mixed with the terms, and with an evil ſanguification from the liver and ſpleen; alſo by immoderate drinking, or the eating of crude meats; all which cauſing a repletion, do ſuffocate the native heat; it may alſo be cauſed by the overflowing of the courſes, or by any other immoderate evacuation. The ſigns of this diſtemper are, the lower parts of the belly, with the privities, are puffed up and pained; the feet ſwell, the natural colour of the face decays; the appetite is departed; the terms alſo are fewer, and ceaſe before their time; her breaſts are alſo ſoft, but without milk. This is diſtinguiſhed from a general dropſy, in that the lower parts of the belly are moſt ſwelled; neither does the ſanguificative faculty appear ſo hurtful, nor the urine ſo pale, nor the countenance ſo ſoon changed, neither are the ſuperior parts ſo extenuated, as in a general dropſy. But yet this diſtemper foretels the total ruin of the natural functions, by that ſingular conſent the womb hath with the liver, and therefore an evil habit of body or a general dropſy will follow.

For the cure of this diſeaſe, firſt mitigate the pain with fomentations, of mellilot, mallows, linſeed, camomile, and althæa, then let the humour be prepared with ſyrup of ſtoechus, calamint, mugwort of both ſorts, with the diſtilled waters or decoctions of elder, marjorum, ſage, origin, ſpeerage, penny-royal,

penny-royal, and bettony: and let her purge with ſenna, agaric, rhubarb, and eliterian. To purge the water; Take calamints, mugwort, lovage roots, penny-royal, each a handful; ſavil, a pugil; madder roots, angelical, of each half an ounce; boil them in water, and ſweeten them with ſugar. Or, if ſhe likes it better, make broths of the ſame. Alſo take ſpecirem diambree, diameſci dulcis, diacalamenti, diacinnamoni, diacimini, troce de myrrh, of each two drams; ſugar one pound, with bettony water make lozenges, and let her take of them two hours before meals. Apply alſo to the bottom of the belly, as hot as can be endured, a little bag of camomile, cummin, and melilot boiled in oil of rue; and anoint the belly and privities with unguentum Agrippæ, mingling therewith oil of Iroes. Let the lower parts of the belly be covered with a plaiſter of bay-berries, or with a cataplaſm made of cummin, camomile and briony-roots, adding thereto cows and goats dung. For injection into the womb; Take aſarum roots three drams, penny royal, calamint, each half a handful, ſavin, a pugil mechoacan a dram: anniſeed, cummin, each half a dram. Boil them, and take ſix ounces ſtrained, with oil of elder and orris, each an ounce; and inject it into the womb by a metrenchita; let the air be hot and dry. Moderate exerciſe may be allowed, but much ſleep is forbidden. She may eat the fleſh of partridges, larks, chickens, mountain birds, hares, coneys, &c.; and let her drink be wine, mixed with a little water.

SECT. VI. *Of an Inflammation of the Womb.*

THIS effect is a tumour poſſeſſing the womb, accompanied with unnatural heat, by obſtruction, and gathering together of corrupt blood: for the blood that comes to the womb gets out of the veſſels into its ſubſtance, and grows hot, putrifies, and cauſeth an inflammation, either all over, or in part, before or behind, above or below. This happens alſo by ſuppreſſion of the menſtrues, repletion of the whole body, immoderate copulation, often handling of the genitals, difficult child birth, vehement agitation of the body, or by falls or blows. The ſigns of this inflammation are tumours, with heat and pain in the region of the womb, ſtretching and heavineſs in the privities, alſo a pain in the head and ſtomach, with vomiting, coldneſs of the knees, convulſions of the

the neck, dotting, trembling of the heart: and ſometimes ſtraitneſs of breath, by reaſon of heat which is communicated to the diaphragma, or midriff; and the breaſts, ſympathizing with the womb, are pained and ſwelled; but more particularly, if the fore part of the matrix be inflamed, the privities are grieved, and the urine is ſuppreſſed, or flows forth with difficulty; if it be behind, the loins and back ſuffer, and the belly is bound: if the inflammation be in the bottom of the womb, the pain is towards the navel: if the neck of the womb be affected, the midwife, putting up her finger, may feel the mouth of it retracted and cloſed up, with a hardneſs about it. As to the prognoſtics of it, all inflammations of the womb are dangerous, and ſometimes deadly, eſpecially if it be all over the womb; if the woman be with child ſhe rarely eſcapes; an abortion follows, and the mother dies.

As to the cure; Firſt let the humours flowing to the womb be repelled; for the effecting of which, after the belly hath been opened by coolling clyſters, letting of blood will be needful: open therefore a vein in the arm, but have a care of bleeding in the foot, leſt thereby you draw more blood to the womb; but afterwards to derive: if it be from the terms ſtop it you may. The opinion of Galen is, that the blood may be diverted by bleeding in the arm, or cupping the breaſts; and that may be by opening an ancle vein, and cupping upon the hips. Then purge gently with caſſia, rhubarb, ſenna, and mirobolans, thus: Take ſenna two drams, anniſeed one ſcruple, mirobolans half an ounce, barley-water a ſufficient quantity, make a decoction; diſſolve it in ſyrup of ſuccory, with rhubarb two ounces, pulp of caſſia half an ounce, oil of anniſeed two drops, and make a potion. Alſo at the beginning of the diſeaſe anoint the privities and reins with oil of roſes and quinceys. Make plaiſters of plantain, linſeed, barley-meal, mellilot, fenugreek, and white of eggs; and if the pain be vehement add a little opium. For repellers and anodynes take Venus-navel, purſlain, lettuce, houſeleek, vine leaves, each a handful, boil them in wine, and barley meal, two ounces; pomegranate flowers two drams, boil a dram with oil of roſes, and make a poultice. Or take diacibilon ſimple, two ounces, juice of Venus-navel, and plantain, each half an ounce, take of fenugreek, mallow roots, decocted figs, linſeed, barley-meal, doves dung, turpentine, of each three drams;

drams; deer's ſuet half a dram, opium half a ſcruple, and with wax make a plaiſter. After it is ripe, break it by motion of the body, coughing; ſneezing, or elſe by cupping and peſſaries: as, Take rue half a handful, figs an ounce, pigeons dung, orris roots, each half a dram; with wool make a peſſary. After it is broken, and the pains abate, then cleanſe and heal the ulcer with ſuch cleanſers as theſe; viz. Whey, barley-water, honey, wormwood, ſmallage, gribus, orris, birthwort, myrrh, turpentine, alum: As take new-milk boiled a pint, honey half a pint, orris powder half an ounce, and uſe it very often every day. If it break about the bladder uſe an emulſion of cold ſeeds, whey and ſyrup of violets. Let her drink barley water, or clarified whey, and her meat be chickens, and chicken broth, boiled with endive, ſuccory, ſorrel, bugloſs and mallows.

Sect. VII. *Of Schirroſity and Hardneſs of the Womb.*

A PHLEGM, or ſwelling in the womb neglected, or not perfectly cured, often produces a ſchirroſity in the matrix, which is a hard, inſenſible, unnatural ſwelling, cauſing barrenneſs, and begetting an indiſpoſition of the whole body. The immediate cauſe is a thick, earthy humour, (as natural melancholy for inſtance) gathered in the womb, and cauſing a ſchirrous without inflammation. It is a proper ſchirrous when there is neither ſenſe nor pain, and it is an improper ſchirrous when there is ſome little ſenſe and pain. This diſtemper is moſt uſual in women of a melancholy conſtitution, and alſo ſuch as have not been cleanſed from their menſtrues, or from the retention of the lochia or after purgings; it is likewiſe ſometimes cauſed by eating corrupt meat; or thoſe inordinate longings called Pica, to which breeding women are often ſubject: and laſtly, it may alſo proceed from obſtructions and ulcers in the womb, or ſome evil effects in the liver and ſpleen. It may be known by theſe ſigns. If the effect be in the bottom of the womb, ſhe feels as it were a heavy burden repreſenting a mole, yet differing, in that the breaſts are attenuated, and the whole body alſo. If the neck of the womb be hardened, no outward humour will appear, the mouth of it is retracted, and touched with the finger feels hard; nor can ſhe have the company of a man without great pains and prickings. This

ſchirroſity

ſchirroſity or hardneſs is (when confirmed) incurable, and will turn into a cancer, or dropſy; and ending in a cancer, proves deadly; the reaſon of which is, becauſe the native heat in thoſe parts being almoſt ſmothered, it is hardly to be reſtored again.

For the cure of this, firſt prepare the humour with ſyrup of burrage, ſuccory, epilcymum, and clarified whey; which being done, take of theſe pills following, according to the ſtrength of the patient: Take hicra picra ſix drams and a half; agaric, lazuli abluti ſalis Indiæ, coloquintida, of each one dram and a half; mix them, and make pills. The body being purged, proceed to mollify the hardneſs as followeth; anoint the privities and the neck of the womb with the following ointment: Take oil of capers, lillies, ſweet almonds, jeſſamin, each an ounce; freſh butter, hens-greaſe, gooſe-greaſe, of each an ounce; mucilage, fenugreek, althæa, ointments of althæa, each ſix drams; ammoniacum diſſolved in wine, an ounce, which with wax make an ointment. Then apply below the navel diachylon fernelli; and make emulſions of figs, mugwort, mallows, penny-royal, althæa, fennel roots, mellilot, fenugreek, and linſeed boiled in water; but for injection, take bdellium diſſolved in wine, oil of ſweet almonds, lillies, cammomile, each two ounces, marrow of veal bone, and hen's greaſe each an ounce, with the yolk of an egg. The air muſt be temperate; and as for her diet let her abſtain from all groſs, viſcous, and ſalt meats, as pork, fiſh, old cheeſe, &c.

Sect. VIII. *Of the Straitneſs of the Womb, and its Veſſels.*

THIS is another effect of the womb, which is an obſtruction to the bearing of the children, as hindering both the flowing of the menſtrues and conception, and is ſeated in the veſſels of the womb, and of the neck thereof. The cauſe of this ſtraitneſs are thick and rough humours that ſtop the mouths of the veins and arteries: theſe humours are bred of either groſs or too much nouriſhment: when the heat of the womb is ſo weak that it cannot attenuate the humours, which, by reaſon thereof, either flow from the whole body, or are gathered into the womb. Now the veſſels are made cloſer or ſtraiter ſeveral ways: ſometimes by inflammations, ſchirrous,

ſchirrous, or other tumours; ſometimes by compreſſions, or by a ſcar, or fleſh, or membrane, that grows after the wound. The ſigns by which this is known are the ſtoppage of the terms, not conceiving, crudities abounding in the body, which are known by particular ſigns; for if there was a wound, or the ſecundine was pulled out by force, phlegm comes from the wound. If ſtoppage of the terms be from an old obſtruction by humours it is hard to be cured; if it be only from the diſorderly uſe of aſtringents, it is more curable; if it be from a ſchirrous or other tumours that compreſſeth or cloſeth the veſſels, the diſeaſe is incurable.

For the cure of that which is curable obſtructions muſt be taken away, phlegm muſt be purged, and ſhe muſt be let blood, as will be hereafter directed in the ſtoppage of the terms. Then uſe the following medicines: take of anniſeed and fennel-ſeed, each a dram; roſemary, penny-royal, calamint, bettony-flowers, each an ounce; caſtus, cinnamon, galengal, each half an ounce; ſaffron half a dram, with wine. Or take aſparagus roots, parſley roots, each an ounce: penny royal, calamints, each an handful; wall-flowers, dill-flower, each two pugils; boil, ſtrain, and add ſyrup of mugwort, an ounce and half. For a fomentation, take penny-royal, mercury, calamint, marjorum, mugwort, each two handfuls: ſage, roſemary, bays, camomile flowers, each a handful; boil them in water and foment the groin and bottom of the belly, or let her ſit up to the navel in a bath, and then anoint about the groin with oil of rue, lillies, dill, &c.

SECT. IX. *Of the falling of the Womb.*

THIS is another evil effect of the womb, which is both very troubleſome, and alſo a hindrance to conception. —Sometimes the womb falleth to the middle of the thighs, nay, almoſt to the knees, and may be known then by its hanging out. Now that which cauſeth the womb to change its place, is when the ligaments by which it is bound to the other parts are not in order: for there are four ligaments, two above, broad and membranous that come from the peritonæum, and two below, that are nervous, round and hollow; it is alſo bound to the great veſſels by veins and arteries, and to the back by nerves; now the place is changed when it is drawn another way, or when the ligaments are looſe, and it falls

falls down by its own weight. It is drawn on one ſide when the menſtrues are hindered from flowing, and the vein and arteries are full, namely, thoſe which go to the womb. If it be a mole on one ſide, the liver and ſpleen cauſe it; by the liver veins on the right ſide and the ſpleen on the left, as they are more or leſs filled. Others are of opinion, it comes from the ſolution of the connexion of the fibrous neck, and the parts adjacent; and that is from the weight of the womb deſcending: this we deny not; but the ligaments muſt be looſe or broken But women in a dropſy could not be ſaid to have the womb fallen down if it come only from looſeneſs; but in them it is cauſed by the fulneſs of the water, which dries more than it moiſtens. Now if there be a little tumour within or without the privities, like a ſkin ſtretched, or a weight felt about the privities it is nothing elſe but a deſcent of the womb; but if there be a tumour like a gooſe egg, and a hole at the bottom, there is at firſt a great pain in the parts to which the womb is faſtened, as the loins, the bottom of the belly, and the os ſacrum, which proceeds from the breaking or ſtretching of the ligaments, but a little after the pain abated; and there is an impediment in walking and ſometimes blood comes from the breach of the veſſels, and the excrements and urine are ſtopt, and then a fever and convulſion enſueth, and then it oftentimes proves mortal, eſpecially if it happens to women with child.

For the cure of this diſtemper, firſt put it up before the air alter it or it be ſwollen or inflamed; and therefore firſt of all give a clyſter to remove the excrements, then lay her upon her back, with her legs abroad, and thighs lifted up, and head down; then take the tumour in your hand and thruſt it in without violence; if it be ſwelled by alteration and cold, foment it with the decoction of mallows, althæa, line, fenugreek, camomile flowers, bay berries, and anoint it with oil of lilies and hens greaſe. If there be an inflammation, don't put it up, but fright it in, by putting a red hot iron before it, and making a ſhew as if you intended to burn it, but firſt ſprinkle upon it the powder of maſtich, frankincenſe, and the like: Thus take frankincenſe, maſtich, each two drams; ſarcocol, ſteeped in milk, a dram mummy, pomegranate flowers, ſanguis draconis, each half a dram; when it is put up let her lie with her legs ſtretched, and

one upon the other, for eight or ten days and make a peſſary in the form of a pear with cork or ſponge, and put it into the womb, dipped in ſharp wine, or juice of Acacia, with powder of ſanguis, with galbanum, bdellium Alſo apply a cupping glaſs with great flame under the navel or paps, or to both kidneys, and lay this plaiſter to the back: Take opoponix two ounces. ſtorax liquid half an ounce, maſtich, frankincenſe, pitch bole, each two drams, then with wax make a plaiſter; or, take laudanum a dram and a half, maſtich and frankincenſe, each half a dram; wood aloes, cloves, ſpike, each a dram; aſh-coloured ambergreaſe four grains, muſk half a ſcruple; make two round plaiſters to be laid on each ſide of the navel; make a fume of ſnails ſkins ſalted, or of garlic, and let it be taken in by the funnel. Uſe alſo aſtringent fomentations of bramble leaves, plantain, horſe-tails, myrtles, each two handfuls, worm ſeed two pugils, pomegranate flowers half an ounce, boil them in wine and water. For an injection take comfrey roots an ounce, rupture wort two drams, yarrow, mugwort, each half an ounce, boil them in red wine, and inject it with a ſyringe. To ſtrengthen the womb, take hartſhorn, bays, of each a dram, myrrh half a dram; make a powder for two doſes, and give it with ſharp wine Or you may take zedoary, parſnip ſeed, crabs eyes prepared, each a dram; nutmeg half a dram, and give a dram in powder: but aſtringents muſt be uſed with great caution, leſt by ſtopping the courſes a worſe miſchief follow. To keep it in its place, make rollers and ligatures as for the rupture; and put peſſaries into the bottom of the womb, that may force it to remain. I know ſome phyſicians object againſt this, and ſay they hinder conception: but others in my opinion much more juſtly affirm, that they neither hinder conception, nor bring any inconvenience; nay, ſo far from that, they help conception, and retain it, and cure the diſeaſe perfectly — Let the diet be ſuch as has drying, aſtringent, and glewing qualities, ſuch as rice, ſtarch, quinceys, pears, and green cheeſe: but let ſummer fruits be avoided; and let her wine be aſtringent and red.

CHAP.

CHAP. III.

Of Diſeaſes relating to Womens monthly Courſes.

SECT. I. *Of Womens monthly Courſes in general.*

THAT divine providence, which with a wiſdom worthy of itſelf, has appointed woman to conceive by coition with the man, and to bear and bring forth children, has provided for the nouriſhment of children during their receſs in the womb of their mother, by that redundancy of the blood which is natural to all women, and which, flowing out at certain periods of time, (when they are not pregnant) are from thence called terms: and menſes, from their monthly flux of excrementious and unprofitable blood; now that the matter flowing forth is excrementious, is to be underſtood only with reſpect to the redundancy and overplus thereof, being an excrement only with reſpect to its quantity; for as to its quality, it is as pure and incorrupt as any blood in the veins; and thus appears from the final cauſe of it, which is the propagation and converſation of mankind: and alſo from the generation of it, it being the ſuperfluity of the laſt aliment of the fleſhy parts. If any aſk if the menſtrues be not of a hurtful quality, how can it cauſe ſuch venomous effects; as if it fell upon trees and herbs, it makes the one barren, and mortifies the other? I anſwer. This malignity is contracted in the womb; for the woman wanting native heat to digeſt this ſuperfluity, ſends it to the matrix, where, ſeating itſelf till the mouth of the womb be dilated, it becomes corrupt and mortified; which may eaſily be, conſidering the heat and moiſtneſs of the place; and ſo this blood being out of its proper veſſels, and too long retained, offends its quality. But if frigidity be the cauſe why women cannot digeſt all their laſt nouriſhment, and by conſequence have theſe monthly purgations, how comes it to paſs, may ſome ſay, why they are of ſo cold a conſtitution more than men? Of this I have already ſpoken in the chapter of barrenneſs; only chiefly thus: The author of our being has laid an injunction upon men and women to propagate their kind, hath alſo wiſely fitted them for that work; and ſeeing that in the act of coition there muſt be an agent and a patient (for if they be of one conſtitution there can be no propagation), there

the man is hot and dry, and the woman cold and moiſt; he is the agent, ſhe the patient or weaker veſſel, that ſhe might be ſubject to the office of the man. It is therefore neceſſary that the woman ſhould be of a cold conſtitution, becauſe in her is required a redundancy of matter for the infant depending on her; and this is wiſely ordained by nature, for otherwiſe the child would detract from and weaken the principal parts of the mother, which would moſt naturally render the product of the infant the deſtruction of the parent. Now theſe monthly purgations uſually begin about the fourteenth year, and continue till the forty-ſixth or fiftieth year; yet not ſo conſtantly, but that oftentimes there happens a ſuppreſſion, which is ſometimes natural and ſometimes morbifical; when they are naturally ſuppreſſed, it is either in breeding women, or ſuch as give ſuck: but that which is morbifical muſt be the ſubject of the following ſections.

Sect. II. *Of the Suppreſſion of the monthly Courſes.*

THE ſuppreſſion of the terms, which is morbific, is an interception of that accuſtomary evacuation of blood which ſhould come from the matrix every month, and which proceeds from the matter viriated.—The cauſe of this ſuppreſſion is either internal or external: the internal cauſe is either inſtrumental or material in the blood or in the womb. The blood may be faulty two ways; in quantity, or in quality; in quantity, when it is ſo conſumed that there is no overplus left, as in viragoes and all virile women, who, through their heat and ſtrength of nature, digeſt and conſume all their beſt nouriſhment: but women of this conſtitution are rather to be accounted Anthropophagæ; that is women-eaters, than women-breeders; becauſe they conſume one of the principals of generation, which gives a being to the world, i. e. the menſtrous blood. The blood may alſo be conſumed and the terms ſtaid by too much bleeding at the noſe: and likewiſe by a flux of the hemorrhoids, or by a dyſenteria, evacuations, and chronical and continued diſeaſes. But ſecondly, the matter may be vicious in quality, as if it be ſanguinous, flegmatical, hidious, or melancholius: each of theſe, if they offend in groſſneſs, will cauſe an obſtruction in the veins.

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The womb alſo may be in the fault divers ways; as by the narrowneſs of the veins and paſſages by apoſthumes, tumours, ulcers, and by over-much cold and heat, the one vitiating the action, and the other conſuming the matter; alſo by an evil compoſition of the matter; alſo by an evil compoſition of the uterine parts, by the neck of the womb being turned aſide; and ſometimes, (though but rarely) by a membrane or excreſſence of fleſh growing about the womb.

The external cauſe may be heat, or dryneſs of the air, immoderate watching, great labour, violent motion, whereby the matter is ſo conſumed, and the body is ſo exhauſted, that there is no redundant blood remaining to be expelled; where it is recorded of the Amazons, that being active, and always in motion, they had little or no monthly fluxes: it may alſo be cauſed by cold; and moſt frequently it is ſo, making the blood vicious and groſs, condenſing and binding up the paſſages, that it cannot flow forth.—The ſigns of the diſeaſe are pains in the head, neck, back, and loins, with wearineſs of the whole body, but eſpecially of the hips and legs, by reaſon of a confinity which the womb hath in thoſe parts: if the ſuppreſſion proceeds from cold, it cauſes a heavy ſluggiſh diſpoſition, a pale colour, a ſlow pulſe, the urine crude, wateriſh, and much in quantity, and no deſire to copulation, the excrements of the guts being uſually retained; but if it proceeds from heat, the ſigns are contrary. If it be natural, or cauſed by conception, it may be known by drinking water and honey after ſupper, going to bed; for if, after the taking it, it cauſeth the woman to feel a bearing pain about the navel and lower parts of the belly, it is a ſign ſhe hath conceived, and that the ſuppreſſion is natural; if not, then it is vicious, and ought medicinally to be taken away; otherwiſe many dangerous diſeaſes will follow, ſuch as ſwoonings, faintings, intermiſſion of pulſe, obſtructions, chachexies, jaundice, dropſies, hardneſs of the ſpleen, epilepſies, apoplexies, frenzies, melancholy paſſions, &c. which makes it highly neceſſary to ſay ſomething now of the cure.

The cure of this diſtemper muſt be by evacuation, for this ſuppreſſion is a plethoric effect: it will therefore be beſt in the midſt of the menſtrual period to open the liver-vein; and for the reverſion of the humour two days before

the wonted evacuation, open the ſaphena veins of both feet: and if the repletion be not great, apply cupping glaſſes to the legs and thighs; after letting blood, the humour muſt be prepared and made flexible with ſyrup of flæchas, hore-hound, hyſon, bettony, maiden-hair, of each one handful, make a decoction, and take thereof three ounces; ſyrup of mugwort, ſuccory, maiden-hair, mix each half an ounce; and after ſhe comes out of the bath, let her drink it off. Then purge pil. de agaric, elephang. coch. fædit. Galen in this caſe commends pilula de hiera cum coloquintida; for as they are proper to purge the humour offending, ſo they open the paſſages of the womb. If the ſtomach be overcharged, let her take a vomit; but if it be ſo prepared as to act both ways, leſt the humours ſhould be too much turned back by working only upwards; to which end, take trochiſk of Agaria two drams, infuſe them in three ounces of oximel, in which diſſolve benedict. laxat. half an ounce, and of the electuary diaſarum one ſcruple; and let her take it after the manner of a purge. When the humour has been thus purged, you may proceed to more proper and forcible remedies. Take extract of mugwort one ſcruple and a half, rinds of caſſia, parſley-ſeed, caſtor, of each a ſcruple; and with juice of ſmallage, or after ſupper going to bed. Alſo adminiſter to the lower parts by ſuffumigations, peſſaries, unctions, injections, and infuſions; make ſuffumigations of amber, galbanum, melanthum, bay-berries, lugwort, cinnamon, nutmegs, cloves, &c. Make peſſaries of figs, and the leaves of Mercury bruiſed, and rolled up with lint. Make injections of the decoction of Mercury, bettony, origin, mugwort, and figs, and inject it into the womb by an inſtrument fit for that purpoſe. For unction, take landant, oil of myrrh, of each two drams; oil of lillies, almonds, capers, camomile, of each half an ounce; and with wax make an unguent, with which let the place be anointed.

Let the air be hot and dry, her ſleep ſhorter than ordinary; let her uſe moderate exerciſe before meals, and let her meat and drink be attenuating.

Sect. III. *Of the Overflowing of the monthly Courſes.*

THIS diſtemper is directly contrary to that of which I have ſpoken in the foregoing ſection, and is no leſs dangerous than the other, and therefore requires to be ſpoken to next in order. This diſtemper is a ſanguinous excrement, proceeding from the womb, and exceeding in time and quality. I call it ſanguinous, becauſe there are two ways by which the blood flows forth; one is by the internal veins in the body of the womb, which is properly called the monthly flux; the other is, by thoſe veins which are terminated in the neck of the matrix, which ſome phyſicians call the hemorrhoids of the womb; and that it exceeds in quantity when they flow about three days; but this is the moſt certain ſign of their exceſs in flowing, when they flow ſo long that the faculties of the body are thereby weakened; for in bodies abounding with groſs humours, this immoderate flux does ſometimes unburden nature of her load, and is not to be ſtopt without advice from a phyſician.

The cauſe of this immoderate flowing is either external or internal; the external cauſe may be the heat of the air, lifting and carrying heavy burdens, unnatural child-births, falls, &c. The internal cauſe may be threefold; in the matter, inſtrument, or faculty: the matter, which is the blood, may be vicious two ways; firſt, in quantity, being ſo much that the veins are not able to contain it; ſecondly, in quality, being adhuſt, ſharp, wateriſh, or unconcocted: The inſtrument, viz. the veins, are faulty by the dilatation of the orifice, which may be cauſed two ways; firſt, by the heat of the conſtitution, climate, or ſeaſon, heating the blood, whereby the paſſages are dilated, and the faculty weakened, that it cannot retain in the blood; ſecondly, by falls, blows, violent motion, breaking of a vein, &c.

This inordinate flux may be known by the appetite's being decayed, the concoction depraved, and all the actions of the body weakened; the feet ſwelled, the colour of the face changed, and a general feebleneſs poſſeſſing the whole body. If it comes by the breaking of a vein, the body is ſometimes cold, the blood flows forth on heaps, and that ſuddenly, with great pain; if it comes through heat, the orifice of the veins being dilated, then there is little or no pain, yet

yet the blood flows faſter than it doth in an eroſion, and not ſo faſt as in a rupture. If by eroſion, or ſharpneſs of blood, ſhe feels a great heat ſcalding the paſſage, it differs from the other two, in that it flows not ſo ſuddenly nor ſo copiouſly as they do. If it be by weakneſs of the womb, ſhe has an averſion to copulation; if it proceeds from the blood, drop ſome of it on a cloth, and when it is dry you may judge of the quality by the colour; if it be choleric, it will be yellow; if melancholy, black; if phlegmatic, wateriſh and whitiſh.

The cure of this conſiſts in three particulars; firſt, in repelling and carrying back the blood; ſecondly, in correcting and taking away the fluxibility of the matter; and thirdly, in corroborating the veins or faculties. For the firſt, to cauſe a regreſſion of the blood, open a vein in her arm, and draw out ſo much blood as the ſtrength of the patient will permit, and that not together, but at ſeveral times, for thereby the ſpirits are leſs weakened, and the retraction ſo much the greater. Apply the cupping-glaſs to the liver, that the reverſion may be in the fountain. To correct the fluxibility of the matter, cathartical means, moderated with aſtrictories, may be uſed. If it be cauſed by ſharpneſs of blood, conſider whether the eroſion be by ſalt phlegm, or a duſt colour: if by ſalt phlegm, prepare with ſyrup of violets, wormwood, roſes, citron-peels, ſuccory, &c. then take this purgation following: mirabolans, cherbul half an ounce, trochiſks of agaric, one dram; with plantain-water make a decoction; add thereto ſyr. roſat. lux, three ounces, and make a potion. If by a duſt colour, prepare the body with ſyrup of roſes, myrtles, ſorrel, purſlain mixed with water of plantain, knot graſs and endive, then purge with this potion: Take rinds of mirabolans, rhubarb, of each one dram, cinnamon fifteen grains; infuſe them one night in endive water; add to it the ſtraining pulp of tamarinds, caſſia, of each half an ounce, ſyrup of roſes one ounce, and make a potion. If the blood be wateriſh and unconcocted, as it is in hydropical bodies, and flows forth by reaſon of the tenury, to draw off the water will be profitable: to which end, purge with agarci, elaterium, and coloquintida. Sweating is alſo very proper in this caſe, for by it the matter offending is taken away, and the motion of the blood is carried to the outward parts. To procure ſweat, uſe cardamum-water with mithridate, or the decoction of guiacum, ſaſſafras, ſarſaparella,

gum

gum of guiacum does alſo greatly provoke ſweat: and pills of ſarſaparella, taken every night going to bed, are worthily commended. If the blood flows forth from the opening or breaking of a vein, without any evil quality of itſelf, then ought corrobratives only to be applied, which is the thing to be done in this inordinate flux; bole armoniac one ſcruple, London treacle one dram, old conſerve of roſes half an ounce, with ſyrup of myrtles, make an electuary. Or, if the flux has continued long, take of maſtich two drams, olibani, tyoch, de careble, of each one dram; balauſtium one ſcruple, make a powder; with ſyrup of quinces make it into pills, and take one always before meals.

Sect. IV. *Of Terms coming out of Order, either before or after the uſual Time.*

BOTH theſe have an ill conſtitution of body; every thing is beautiful in its order, in nature as well as in morality; and if the order of nature be broke, it ſhews the body to be out of order: of each of theſe effects briefly.

When the monthly courſes come before their time it ſhews a depraved excretion that comes for the time, often flowing ſometimes twice a month; the cauſe why they come ſooner is in the blood, which ſtirs up the expulſive faculty in the womb, or ſometimes in the whole body, cauſed oftentimes by the perſon's diet, which increaſes the blood too much, makes it too ſharp or too hot; and if the retentive faculty of the womb be weak, and the expulſive faculty ſtrong, and of a quick ſenſe, it brings them forth the ſooner; and ſometimes they flow ſooner by reaſon of a fall, ſtroke, or ſome violent paſſion, which the parties themſelves can beſt relate. If it be from heat, thin and ſharp humours, it is known by the diſtemper of the whole body. The looſeneſs of the veſſels, and weakneſs of the retentive faculty, is known from a moiſt and looſe habit of body. It is more troubleſome than dangerous, but hinders conception, and therefore the cure is neceſſary for all, but eſpecially ſuch as deſire children. If it proceeds from a ſharp blood, let her temper it by a good diet, and medicines. To which purpoſe let her uſe baths of iron water, that correct the diſtemper of the bowels, and then evacuate. If it proceeds from the retentive faculty, and looſeneſs of the veſſels, it is to be corrected with gentle aſtringents.

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As to the courſes flowing after the uſual time, the cauſes are thickneſs of the blood, and the ſmallneſs of its quantity, with the ſtraitneſs of the paſſage and weakneſs of the expulſive faculties, either of theſe ſingly may ſtop the courſes, but if they all concur, they render the diſtemper the worſe. If the blood abounds not in ſuch a quantity as may ſtir up nature to expel it, its purging muſt neceſſarily be deferred till there be enough. And if the blood be thick, the paſſage ſtopped, and the expulſive faculty weak, the menſes muſt needs be out of order, and the purging of them retarded.

For the cure of this, if the quantity of blood be ſmall, let her uſe a larger diet, and very little exerciſe. If the blood be thick and foul, let it be made thin, and the humours mixed therewith be evacuated. It is good to purge after the courſes have done flowing, and to uſe calaminta; and indeed the oftener ſhe purges the better. She may alſo uſe fumes and neceſſaries, apply cupping-glaſſes without ſcarification to the inſide of the thighs, and rub the legs, and ſcarify the ancles, and hold the feet in warm water four or five days before the courſes come down. Let her alſo anoint the bottom of her belly with things proper to provoke the terms.

SECT. V. *Of the falſe Courſes, or Whites.*

THE whites or falſe courſes are a foul excretion from the womb; for from the womb proceeds not only the menſtruous blood, but accidentally many other excrements, which is a diſtillation of a variety of corrupt humours through the womb, flowing from the whole body, or part of the ſame; which, though called the whites, are ſometimes blue, or green, or reddiſh, not flowing at a ſet time, or every month, but in a diſorderly manner, ſometimes longer, and ſometimes ſhorter. It is different from the running of the reins, being both leſs in quantity, and whiter and thicker in quality, and coming at a great diſtance: it is different alſo from thoſe night pollutions, which is only in ſleep, and proceed from the imagination of venery.

The cauſe of this diſtemper is either promiſcuouſly in the whole body, by a cacochymia, or weakneſs of the ſame, or in ſome of the parts; as in the liver, which, by the inability

of

of the ſanguificative faculty, cauſeth a generation of corrupt blood, and then the matter is reddiſh: ſometimes in the gall, being remiſs in its office, not drawing away thoſe choleric ſuperfluities which are ingendered in the liver, and then the matter is yellowiſh; ſometimes in the ſpleen, not defecating and cleanſing the blood of the excrementious parts, and then the matter flowing forth is blackiſh: it may alſo come from catarrhs in the head, or from any other putrified or corrupt member. But if the matter of the flux be whiter, the caſe is either in the ſtomach or veins. In the ſtomach, by a phlegmatical and crude matter there contracted and vitiated through grief, melancholy, and other diſtempers; for otherwiſe, if the matter were only pituitous, and no ways corrupt or vitiated, being taken into the liver, it might be converted into blood for phlegm in the ventricle is called nouriſhment half digeſted. But being corrupt, though it be ſent into the liver it cannot correct that which the firſt hath corrupted, and therefore the liver ſends it to the womb, which can neither digeſt it nor repel it, and ſo it is voided out, ſtill keeping the colour which it had in the ventricle. The cauſe alſo may be in the veins being over heated, whereby the ſpermatical matter, by reaſon of its tenuity, flows forth. The external cauſe may be the moiſtneſs of the air, eating corrupt meats, anger, grief, ſlothfulneſs, immoderate ſleeping, and coſtiveneſs.

The ſigns are, extenuation of body, ſhortneſs and ſtinking breath, loathing of meat, pain in the head ſwelling of the eyes, melancholy, humidity, flowings from the womb of divers colours, as reddiſh, black, green, yellow, white: it is known from the overflowing of the courſes, in that it keeps no certain periods, and is of ſo many colours, all which do degenerate from blood.

For the cure of this, it muſt be by methods adapted to the caſe; and as the cauſes are various, ſo muſt be the cure.

If it be cauſed by the diſtillation from the brain, take ſyrup of bettony, ſtæchas and marjorum, purge with piloch, napalia, of the juice of ſage, hyſſop, bettony, negalia, with one drop of oil of cloves, and a little ſilk cotton. Take electr. dianth. aromat. roſar diambre. diamoſci dulcis, of each one dram; nutmeg half a dram at night going to bed.

If

If the matter flowing forth be reddiſh, open a vein in the arm; if not, apply ligatures to the arms and ſhoulders; ſome have cured this diſtemper by rubbing the upper parts with crude honey; and to Galen ſays he cured the wife of Boetius.

If it proceeds from crudities in the ſtomach, or from a cold diſtempered liver, take every morning of the decoction of lignum ſanctum; purge with pill. de agarico de ner. modact. de Hiera diacolocynthid fœtida. agragative. Take of elect. aromat ros. two drams. citron peels dried, nutmeg, long pepper of each one ſcruple; diagalinga one dram, santali alba. ligni aloes, of each half a ſcruple; ſugar ſix ounces; with mint water make lozenges of it, and then take it after meals.

If with frigidity of the liver be joined a repreſſion of the ſtomach, purging by vomiting is commendable; for which take three drams of the electuary of diaru. Some phyſicians alſo allow of the dieurical means, as of opium, petroſolinum, &c.

If the matter of the ſyrup be melancholous, prepare with ſyrup of maiden-hair. epithimum, polipody, burrage, bugloſs, fumetary. hart's tongue, and ſyrup bytantinum, which muſt be made without vinegar. otherwiſe it will rather animate the diſeaſe than ſtrengthen nature; for melancholy by the uſe of vinegar is increaſed, and by Hippocrates, Silvius, and Aventinus, it is diſallowed of as an enemy to the womb, and therefore not be uſed inwardly in uterine diſeases: purges of melancholy are, pilulæ eumartæ, pilulæ indæ, pilulæ de lap. Lazuli fiofena, and confectio hameigh. Take of ſtampt prunes two ounces, ſenna one dram, epithimum, polypody. fumetary, of each a dram and a half; four dates, one ounce, with endive water make a decoction; take of it four ounces; add unto it confectionis aamech three drams, manna three drams. Or, pil indatum, pil. ſaridaruni, agarici trochiſcati, of each one ſcruple, lapidus lazuli, five grains. with ſyrup of erithimum make pills, and take one every week

If the matter of the flux be choleric, prepare with ſyrup of endive, violets, ſuccory, roſes, and purge with mirabolans, manna, rhubarb, caſſia; take of rhubarb two drams. anniſeed one dram. cinnamon a ſcruple and a half; mixture them in ſix ounces of prune broth; add to the ſtraining of manna

an ounce, and take it according to art. Take ſpicicrum diatrionſontalon, diatragacant. frig. diarrhod. abbatis diaconit. of each a dram, ſugar four ounces, with plantain water make lozenges.

Laſtly, Let the womb be cleanſed from the corrupt matter, and then corroborated: and for the cleanſing thereof, make injections of the decoction of bettony feverfew, mugwort, ſpikenard, biſtort, mercury, ſage, adding thereto ſugar, oil of ſweet almonds, of each two ounces. Then to corroborate the womb, prepare trochiſks in this manner: take of myrrh, feverfew, mugwort, nutmegs, mace, amber, ligni, aloes, ſtorax, red roſes, of each one ounce. with mucilage of tragacanth make trochiſks; caſt them on the coals, and ſmother the womb therewith; fomentations may be alſo made for the womb of red wine, in which has been decocted maſtich, fine bole, baluſtia, and red roſes; drying diet is beſt, becauſe this diſtemper uſually abounds with phlegmatic and crude humours. Immoderate ſleep is hurtful, but moderate exerciſe will do well.

Thus have I gone through the principal effects peculiar to the female ſex; and preſcribed for each of them ſuch remedies as, with the divine bleſſing, will cure their diſtempers, confirm their health, and remove all thoſe obſtructions, which might otherwiſe prevent their bearing children; and I have brought it into ſo narrow a compaſs, that it might be of the more general uſe, being willing to put it into every one's power, that has occaſion for it, to purchaſe this rich treaſure at an eaſy rate.

The End of the Experienced Midwife.

ARISTOTLE's

BOOK OF

PROBLEMS,

WITH OTHER

ASTRONOMERS, ASTROLOGERS, | PHYSICIANS, AND PHILOSOPHERS:

Wherein are contained divers

QUESTIONS AND ANSWERS,

TOUCHING THE

STATE of MAN's BODY.

READER,

THESE Problems having been printed very often, and finding ſo general an acceptance, divers books have been hoiſted into the world under the name of Ariſtotle; ſo that many people have bought them, thinking they had the right ſort, by which the public has been injured as well as the proprietors.

The matter it contains is neceſſary for all people to know; and as a man is ſaid to be a microcoſm (or little world) and in him the Almighty has imprinted his own image ſo lively, that no power whatſoever is able to blot it out; ſo this image and ſimilitude is the ſoul and underſtanding. And notwithſtanding all the perfections which man hath in himſelf, few or none can take delight in the ſtudy of himſelf, or is careful to know the ſubſtance, ſtate, condition, quality, or uſe, of the ſeveral parts of his own body, although he be the honour of nature, and more to be admired than the ſtrong and rareſt wonder that ever happened. I have therefore publiſhed this little book wrote by Ariſtotle and the deepeſt philoſophers, who teach the uſe of all parts of the body, their nature, quality, property, and ſubſtance; and queſtion not but it will afford both innocent, neceſſary, and uſeful knowledge, and prove profitable to both ſexes.

ARISTOTLE's PROBLEMS.

AMONG all living creatures, why hath man only his countenance lifted up towards heaven?

Unto this queſtion there are divers anſwers.

Firſt, It proceeds from the will of the Creator. And although the anſwer be true, yet in this our purpoſe it ſeemeth not to be of force, becauſe that ſo all queſtions eaſily might be reſolved.

Secondly, I anſwer, that for the moſt part every workman doth make his firſt work worſe, and then his ſecond better; ſo God, creating all other beaſts before man, gave them their face looking down to the earth: And then, ſecondly, he created man, as it doth appear in Geneſis, unto whom he gave an honeſt ſhape, lifted unto heaven, becauſe it is drawn from divinity, and doth alſo derogate from the goodneſs of God, who maketh all his works perfect and good.

Thirdly, It is anſwered, that man only among all living creatures is ordained to the kingdom of heaven, and therefore hath his face elevated and lifted up to heaven, becauſe, that, deſpiſing worldly and earthly things, he ought to contemplate on heavenly things.

Fourthly, That the reaſonable is like unto angels, and finally ordained towards God; as it appears by Averrois, in the firſt de Anima; and therefore he hath a figure looking upward.

Fifthly, That a man is a microcoſm, that is a little world, as it pleaſeth Ariſtotle to ſay in the eighth of this work, and therefore he doth command all other living creatures, and they obey him.

Sixthly, It is anſwered, that naturally there is unto every thing and every work that form and figure given which is fit and proper for its motion; as unto the heaven roundneſs, to the fire a pyramidical form, that is broad beneath, and ſharp towards the top, which form is moſt apt to aſcend; and ſo man had his face up to heaven, to behold the wonders of God's works.

Why is the head of beaſts hairy?

The anſwer, according to the opinion of Conſt. is, that the hairs are the ornament of the head and of the brain, and the brain is purged and evacuated of groſs humour by the growing of the hair, from the higheſt unto the loweſt parts, which paſs through the pores of the exterior fleſh, and do become dry, and are converted into hairs. This appears to be true, becauſe that in all man's body there is nothing dryer than the hairs; for they are dryer than the bones, as Albertus Magnus doth affirm, becauſe that ſome beaſts are nouriſhed with bones, as dogs, but no beaſts can digeſt feathers or hair, but do avoid them undigeſted; and they are too hot for nutriment.

Secondly, It is anſwered, that the brain is purged four manner of ways: Firſt, of ſuperfluous watery humours by the eyes, from melancholy by the ears, and of choler by the noſe, phlegm by the hair, and that is the intent of the phyſician.

Why have men longer hair on their heads than other living creatures?

Ariſt. de Generat. Anim. ſays, That men have the moiſteſt brain of all living creatures, from which the ſeed proceedeth, which is converted into the long hair of the head.

Secondly, It is anſwered, that the humours of man are fat, and do not become dry eaſily, and therefore the hair groweth long in him. In other beaſts the humours eaſily dry, and therefore the hair groweth not ſo long.

Why doth the hair take deeper root in man's ſkin than in other living creatures?

Becauſe they have greater ſtore of nouriſhment in man, and therefore grow more into the inward parts of man. And this is alſo the reaſon why in other creatures the hair doth alter and change with the ſkin, and not in man, unleſs it be ſometimes a ſcar or wound.

Why have women longer hair than men?

Becauſe women are moiſter than men, and phlegmatic, and therefore there is more matter of hair in them, and by conſequence the length alſo of their hair doth follow. And furthermore, this matter is more increaſed in women than in men from their interior parts, and eſpecially in the time of their monthly terms, becauſe the matter doth then aſcend, whereby the humour which breedeth the hair doth increaſe. And Albertus doth ſay, that if the hair of a woman in the time

time of her flowers be put into dung, a venomous ſerpent is ingendered of it.

The ſecond anſwer is, becauſe women want beards, and ſo the matter of the beard doth go into the matter of the hair.

Why hath ſome men ſoft hair and ſome hard?

We anſwer with Ariſtotle, that the hair hath proportion with the ſkin, of which ſome is hard, ſome thick, ſome ſubrile and ſoft, and ſome groſs; therefore the hair which groweth out of a thick and groſs ſkin is thick and groſs, and that which groweth of a ſubrile and fine is fine and ſoft, and when the pores are open then cometh forth much humour, and therefore hard hair is ingendered; and when the pores are ſtrait, then there doth grow ſoft and fine hair. And this doth Ariſtotle ſhew in men, in whom we have an eminent token, becauſe women have ſofter hair than they; becauſe that in women the pores are ſhut, and are ſtrait by reaſon of their coldneſs.

Secondly, Becauſe that for the moſt part choleric men have hard and thicker hair than others, by reaſon of their heat, and becauſe the pores are for ever open in them, and therefore they have beards ſooner than others. Whereupon the philoſopher ſaith, that thoſe beaſts which have hard hair are the boldeſt, becauſe ſuch hair proceedeth of heat and choler, which choler maketh man fight. Ariſtotle alſo giveth example in the bear and the boar; and contrariwiſe, thoſe beaſts that have ſoft are fearful, becauſe they be cold, as the hare and hart. Ariſtotle doth give another reaſon of the ſoftneſs and hardneſs of the hair, drawn from the climate where a man is born; becauſe that in hot regions hard and groſs hair is ingendered, as it appears in the Ethiopians; and the contrary is true in the cold country, as towards the North.

Why have ſome men curled hair and ſome ſmooth?

The anſwer is, That the cauſe of the curling of the hair is great abundance of heat in a man, then the hair doth curl and grow upward. And a ſign of this proved true, becauſe that ſometimes a man doth enter into a bath ſmooth haired, and afterwards by the bath becometh curled. And therefore the keepers of baths have often curled hair, as alſo the Ethiopians and choleric men. But the cauſe of the ſmoothneſs is the abundance of moiſt humours which tend downwards,

downwards, and a proof of this is, becauſe they have much humidity in them and ſmall heat.

Why do women ſhew their ripeneſs by their hair in their privy parts, and not elſewhere, but men in their breaſts?

We anſwer, phyſician like, becauſe in men and women there are abundance of humidity in that place, but more in women, becauſe men have the mouth of the bladder in that place where the urine is contained, of which the hair in the breaſts is ingendered, and about the navel. But of women it is ſaid, that the humidity of the bladder, and of the matrix or womb, is joined, and meeteth in that low ſecret place; and therefore is diſſolved and ſeparated in that place through much vapours and fumes, which are the cauſe of hair. And the like doth happen in other places where hair is under the arms.

Why have not women beards?

Becauſe they want heat, as appeareth in ſome effeminate men, who are beardleſs for the ſame cauſe, becauſe they have the complexion of a woman.

Why doth the hair grow in them that are hanged?

Becauſe their bodies are expoſed to the ſun, which through its heat does diſſolve all the moiſture into a fume or vapour, of which the hair doth grow and increaſe.

Why is the hair of the beard thicker and groſſer than elſewhere, and the more men are ſhaven the harder and thicker it groweth?

Becauſe, according to the rule of the phyſicians, by how much more the humour or vapour of any liquor is diſſolved and taken away, by ſo much the more the humour remaining doth draw to the ſame; and therefore, by how much the more the hair is ſhaven, ſo much the humours gather thicker; and of them hair is ingendered, and doth there alſo wax hard.

Why are women ſmooth and fair in reſpect of men?

The anſwer is, according unto Ariſtotle de Generat. Animal, becauſe that in women all humidity and ſuperfluity, which are the matter and cauſe of the hair of the body, is expelled with their monthly terms; the which ſuperfluity remaineth in men, and through vapours do paſs into the hair. And a ſign of this is, becauſe women having running at the noſe, or impoſthume or ulcer, no ſuch matter is expelled alſo. And we ſee ſome old women begin to have

beards

beards in their old age, that is, after forty or fifty years of age, when their flowers are ceaſed: as Ariſtotle doth teach, de animal. lib. 9.

Why doth man only, above all other creatures, wax hoary and gray, as Pythagoras and Ariſtotle affirm?

The anſwer according unto the philoſophers, is, becauſe man hath the hotteſt heart of all living creatures; and therefore nature being more wiſe, leſt a man ſhould be ſuffocated through the heat of his heart, hath placed the heart, which is moſt hot, under the brain, which is moſt cold; to the end, that the heat of the heart may be tempered with the coldneſs of the brain, and contrariwiſe, that the coldneſs of the brain may be heated with the heat of the heart, and thereby there might be a temperature in both. A ſign to prove this is, becauſe of all living creatures man hath the worſt breath if he comes to his full age. Furthermore, man doth conſume half his time in ſleeping, which doth proceed from the great acceſs of the coldneſs and moiſture of the brain, and by that means doth want natural heat to digeſt and conſume that moiſtneſs: the which heat he hath ſufficiently in his youth; and therefore in that age is not grey, but in his old age, when heat faileth; and therefore the vapours aſcending from the ſtomach remain undigeſted and unconſumed for want of natural heat, and then putrifies, of which putrefaction of humours the whiteneſs doth follow, which is called greyneſs or hoarineſs. Whereby it doth appear, that hoarineſs is nothing elſe but a whiteneſs of hair, cauſed by the putrefaction of humours about the roots of the hair through the want of natural heat in old age. Sometimes alſo greyneſs is cauſed by the naughtineſs of the complexion, which may well happen in youth, and ſometimes by reaſon of the moiſture undigeſted, and ſometimes through over great fear and care, as it appeareth in merchants, ſailors, thieves: from whence cometh this verſe;

"Cura facit canoi, quam vis homo non habet annos."

Why doth red hair grow white ſooner than other;

According to the opinion of Ariſtotle, becauſe redneſs is an infirmity of the hair, for it is ingendered of a weak and infirm matter; that is to ſay, of matter corrupted with the flowers of the woman, and therefore they wax white ſooner than black hair.

Why do wolves grow griſly?

The

The better to underſtand this queſtion, not the differenes between greyneſs and griſling; becauſe that greyneſs is cauſed through the defect of natural heat, but griſlineſs through devouring and heating. as Ariſtotle witneſſeth 7 de animal. The wolf being a devouring beaſt, and an eater, he letteth it down gluttonouſly without chewing and that at once enough for three days, by which meat groſs vapours are ingendered in the wolf's body, and by conſequence griſlineſs. Secondly, greyneſs and griſlineſs do differ, becauſe greyneſs is only in the head, and griſlineſs over all the body.

Why do horſes grow griſly and grey?

According to Ariſtotle, becauſe they are for the moſt part in the ſun: and in his opinion alſo, heat doth accidentally cauſe putrefaction; and therefore that kind of heat the matter of hair doth putrify, and by conſequence they are quickly pilled.

Why do men become bald, and trees let fall their leaves in the winter?

Ariſtotle doth give the ſame reaſon for both; becauſe that the want of moiſture in both is the cauſe of the want of the hair and of the leaves: and this is proved, becauſe that a man becometh bald through venery, becauſe that is letting forth of natural humidity and heat. And ſo by that exceſs in carnal pleaſure moiſture is conſumed which is the nutriment of the hair, and therefore baldneſs doth enſue. And this is evidently proved in eunuchs and women who do not grow bald, becauſe they do not depart from their moiſtneſs; and therefore eunuchs are of the complexion of women. But if you aſk why eunuchs be not bald, nor have the gout, as Hippocrates ſaith, the anſwer is, according to Galen, becauſe the cauſe of baldneſs is dryneſs, the which is not in eunuchs becauſe they want their ſtones, the which do miniſter heat unto all the parts of the body, and the heat doth open the pores, which being open, the hair doth fall.

Why are not women bald?

Becauſe they are cold and moiſt, which are the cauſes that the hair remaineth; for moiſtneſs doth give nutriment to the hair, and coldneſs both bind the pores.

Why are bald men deceitful, according to the verſe,

"Si non vis falli, fugius confertia clavi?"

Becauſe baldneſs doth witneſs a choleric complexion, which

which is hot and dry; and choleric men are naturally deceitful, according to the verſe,

"Hirſutus, fallax, iraſcens, prodigus audax."

And therefore it followeth, "a primo ad ultimum," that bald men are deceitful and crafty.

Why are not blind men naturally bold?

Becauſe that, according to Ariſtotle, the eye hath moſt moiſture in it, and that moiſture which ſhould paſs through by the ſubſtance of the eyes doth become a ſufficient nutriment of the hair, and therefore they are ſeldom bald.

Why doth hair ſtand on end when men are afraid?

Becauſe in the time of fear the heat doth go from the outward part of the body into the inward, to the intent to help the heart, and ſo the pores in which the hair are faſtened are ſhut up; after which ſtopping and ſhutting up of the pores the ſtanding up of the hair doth follow, as it is ſeen in beaſts, as dogs, wild boars, and peacocks.

Of the HEAD.

WHY is a man's head round?

Becauſe this is moſt fit to receive any thing into it, as Ariſtotle doth affirm, lib. de cæl. and the head doth contain in it five ſenſes. This is alſo ſeen in a material ſphere.

Why is the head round?

Ariſtotle ſaith, becauſe it doth contain in it the moiſteſt parts of the living creatures, and alſo becauſe the brain may be defended thereby as with a ſhield.

Why is the head abſolutely long, but ſomewhat round?

To the end the three creeks and cells of the brain might the better be diſtinguiſhed; that is the fancy in the forehead, the diſcourſing or reaſonable part in the middle, and memory in the hindermoſt part.

Why doth a man lift up his head towards the heavens when he doth imagine?

Becauſe the imagination is in the forepart of the head or brain, and therefore it lifteth up itſelf, that the creeks or cells of the imagination may be opened, and that the ſpirits which help the imagination, and are fit for that purpoſe, having their concourſe thither, may help the imagination.

Why doth a man when he muſeth, or thinketh on things paſt, look down towards the earth?

Becauſe

Becauſe the cell or creek which is behind, is the creek or or chamber of memory, and therefore that looketh towards heaven when the head is bowed down; and to that cell is open, to the end that the ſpirits which perfect the memory ſhould enter in.

Why is not the head fleſhy, like other parts of the body?

Becauſe that, according to Ariſtotle, the head would be too heavy, and would not ſtand ſtedfaſtly; and therefore it is without fleſh. Alſo a head loaded with fleſh doth betoken an evil complexion.

Why is the head ſubject to achs and griefs?

According unto Conſtant by reaſon of evil humours which proceed from the ſtomach, aſcend up to the head, and diſturb the brain, and ſo cauſe the pain in the head. And ſometimes it proceeds from overmuch filling the ſtomach, becauſe, according unto the opinion of Galen, two great ſinews paſs from the brain to the mouth of the ſtomach, and therefore theſe two parts do ſuffer grief always together. Sometimes the headach doth proceed of drinking ſtrong wine, of ſuming meats, as garlic or onions and ſometimes of phlegm in the ſtomach, whereof ſpring quotidian fevers.

Why have women the headach more often than men?

Albertus ſaith that it is by reaſon of their monthly terms, which men are not troubled with, and ſo a moiſt, unclean, and venomous fume is diſſolved, the which ſeeking paſſage upward, doth cauſe the headach.

Why is the brain white?

There are two anſwers; the firſt, becauſe it is cold, and coldneſs is the mother of white: the philoſophers do teach the ſecond, becauſe it may receive the ſimilitude and likeneſs of all colours, which the white colour can beſt do, becauſe it is moſt ſimple.

Why are all the ſenſes in the head?

Becauſe, as Albertus ſaith, the brain is there, on which all the ſenſes do depend, and are directed by it, and by conſequence it maketh all the ſpirits to feel, and by it all the membranes are governed.

Why cannot a man eſcape death if the brain or heart be hurt?

Becauſe the brain and heart are two of the moſt principal parts which concern life; and therefore if they be hurt there is no remedy left for cure.

Why

Why is the brain moiſt?

Becauſe it may eaſily receive an impreſſion, which moiſture can beſt do, as it appeareth in wax, which doth eaſily receive the print of the ſeal when it is ſoft.

Why is the brain cold?

This is anſwered two ways; firſt, becauſe that by this coldneſs it may clear the underſtanding of a man, and make it ſubtile. Secondly, that, by the coldneſs of the brain the heat of the heart may be tempered; and this is Ariſtotle's intent. Lib de animal.

Of the EYES.

WHY have you one noſe and two eyes?

Becauſe our light is more neceſſary for us than the ſmelling: and therefore it doth proceed from the goodneſs of Nature, that if we receive any hurt or loſs of one eye, that yet the other ſhould remain: unto the which the ſpirit with which we ſee, called Spiritus Viſus, is directed when the other is out.

Why have children in their youth great eyes, and why do they become ſmaller and leſſer in their age?

According to Ariſtotle de generat. it proceedeth from the want of fire, and from the aſſembling and meeting together of light and humour, the eyes which are lightened by reaſon of the ſun, which doth lighten the eaſy humour of the eye, and purge it, and in the abſence of the ſun thoſe humours become dark and black, and therefore the ſight not ſo good.

Why does the bluiſh grey eye ſee badly in the day time and well in the night?

Becauſe, ſaith Ariſtotle, greyneſs is light and ſhining of itſelf, and the ſpirits with which we ſee are weakened in the day-time, and ſtrengthened in the night.

Why be mens eyes of divers colours?

This proceedeth, ſaith Ariſtotle, by reaſon of the diverſity of the humours; the eye therefore hath four coverings and three humours: the firſt covering is called conſolidative, which is the uttermoſt, and ſtrong and fat. The ſecond is called an horny ſkin and covering to the likeneſs of an horn, and that is a clear covering. The third is called Uvea, of the likeneſs of a black grape. The fourth is called a cobweb. But according to the opinion of ſome, the eye doth conſiſt of

ſeven coverings or ſkins, and three humours. The firſt humour is called abungines, for the likeneſs unto the white of an egg. The ſecond glarial, that is clear, like unto ice or cryſtalline. The third vitreous, that is clear as glaſs. And the diverſity of humour cauſeth the diverſities of the eyes.

Why are men who have but one eye good archers? and why do good archers commonly ſhut one eye? and why do ſuch as behold the ſtars look through a trunk with one eye?

This matter is handled in the perſpective arts, and the reaſon is, as it doth appear in the book of cauſes, becauſe that every virtue and ſtrength united knit together, is ſtronger than itſelf diſperſed and ſcattered. Therefore all the force of ſeeing diſperſed in two eyes, the one being ſhut, is gathered into the other, and ſo the light is fortified in him, and by the conſequence he doth ſee better and more certainly with one eye being ſhut than one being open.

Why do ſuch as drink much and laugh much ſhed much tears?

Becauſe that whilſt they drink and laugh without meaſure, the air which is drawn in doth not paſs out through the windpipe, and ſo with force is directed and ſent to the eyes, and by their pores paſſing out doth expel the humours of the eyes, the which humour being ſo expulſed do bring tears.

Why do ſuch as weep much urine but little?

Becauſe (ſaith Ariſtotle) the radical humidity of a tear and of urine are of one and the ſame nature; and therefore where weeping doth increaſe their urine doth diminiſh; and that they be of one nature, is plain to the taſte, becauſe they are both ſalt.

Why do ſome that have clear eyes ſee nothing at all?

By reaſon of the oppilation and naughtineſs of the ſinews with which we ſee; for the temples being deſtroyed, the ſtrength of the light cannot be carried from the brain to the eye, as the philoſopher doth teach, *lib. de ſen. & ſenatio.*

Why is the eye clear and ſmooth like unto glaſs?

Becauſe the things which may be ſeen, are better beaten back from a ſmooth thing than otherwiſe, that thereby the ſight ſhould ſtrengthen.

Secondly, I anſwer, it is becauſe the eye is very moiſt above all parts of the body, and of a wateriſh nature; and as the water is clear and ſmooth, ſo likewiſe is the eye.

Why

Why do men who have their eyes deep in their head ſee well afar off, and the like in beaſts?

Becauſe, ſaith Ariſtotle, (*2 de Gener. Animal.*) the force and power by which we ſee is diſperſed in them, and doth go directly to the thing which is ſeen. And this is proved by a ſimilitude, becauſe that when a man doth ſtand in a deep ditch or well, he doth ſee in the day-time, ſtanding in thoſe places, the ſtars of the firmament; as Ariſtotle doth teach in his treatiſe *De Formula Specula*; becauſe that then the power of the ſight and of the beams are not ſcattered.

Wherefore do thoſe men who have their eyes far out and not deep in their head ſee but meanly, and not far diſtant?

Becauſe, ſaith Ariſtotle, the beams of the ſight which paſs from the eye are ſcattered on every ſide, and go directly unto the thing that is ſeen, and therefore the ſight is weakened.

Why are many beaſts born blind, as lions whelps and dogs whelps?

Becauſe ſuch beaſts are not yet of perfect ripeneſs and maturity, and the courſe of nutriment doth not work in them. And this is proved by a ſimilitude of the ſwallow, whoſe eyes, if they were taken out when they are little ones in the neſt, would grow again; and this is plain in many other beaſts, which are brought forth before their time as it were dead, as bear whelps. And this reaſon doth belong rather to the perſpective than the natural philoſopher.

Why do the eyes of a woman that hath her flowers ſtain a new glaſs, as Ariſtotle ſaith, *de ſomno & vigil.*; and this is the like problem, why doth a baſiliſk kill a man with his ſight?

To the firſt I anſwer, that when the flowers do run from a woman, then a moſt venomous air is diſſolved in them, which doth aſcend unto the woman's head: and ſhe having grief of her head, doth cover it with many veils and kerchiefs; and becauſe the eyes are full of ſmall inſenſible holes, which are called pores, there the air ſeeketh a paſſage, and ſo doth infect the eyes, which are full of blood. And their eyes do appear alſo dropping and full of tears, by reaſon of the evil vapour that is in them, and thoſe vapours are incorporated and multiplied, until they come unto the glaſs before them; and by reaſon that ſuch a glaſs is ſound, clear, and ſmooth, it doth eaſily receive that which is unclean.

To the ſecond it is anſwered, that the baſiliſk is a very venomous and infected beaſt, and that there paſs from his eyes venomous vapours, which are multiplied upon the thing which is ſeen by him, and even unto the eye of man; the which venomous vapours or humours entering into the body do infect him, and ſo in the end the man dieth. And this is alſo the reaſon why the baſiliſk, looking upon a ſhield perfectly well made with faſt clammy pitch, or any hard ſmooth thing, doth kill himſelf, becauſe the humours are beaten back from the ſmooth hard thing unto the baſiliſk, by which beating back he is killed. And the like is ſaid of a woman when ſhe hath her monthly diſeaſe, whereof it followeth that ſome old women do hurt themſelves when they look upon glaſſes, or other firm and ſolid things, in the time of their terms.

Why is not ſparkling cats eyes and wolves eyes ſeen in the light and not in the dark?

Becauſe that the greater light doth darken the leſſer, and therefore in a greater light the ſparkling cannot be ſeen, but the greater the darkneſs the eaſier it is ſeen, and is made more ſtrong and ſhining, becauſe it is not then hindered by a greater external light, which might darken it.

Why doth a man beholding himſelf in a glaſs preſently forget his own diſpoſition?

Anſwer is made in lib. de forma ſpeculi, that the image ſeen by the glaſs doth repreſent it weakly and indirectly to the power of the ſight; and becauſe it is repreſented weakly, it is alſo weakly apprehended, and by conſequence is not long retained.

Why is the ſight recreated and refreſhed by a green colour, as this verſe ſheweth?

"Fens, ſpeculum gramen oculis ſunt aleviamen."

Becauſe the green colour doth meanly move the inſtrument of ſight, and therefore doth comfort the ſight; but this doth not black nor white colours, becauſe the colours do vehemently ſtir and alter the organ and inſtrument of the light, and therefore make the greater violence, but by how much the more violent the thing is which is felt or ſeen, the more it doth deſtroy and weaken the ſenſe, as Ariſtotle doth teach, lib. 2. de animal.

Of

Of the Nose.

WHY doth the noſe ſtand out farther than other parts of the body?

There are two anſwers: The firſt, becauſe the noſe is as it were the ſink of the brain, by which the phlegm of the brain is purged, and therefore it doth ſtand forth, leſt the other parts ſhould be defiled: the ſecond (according to Conſtant.) is, becauſe the noſe is the beauty of the face, and therefore it doth ſhew itſelf, and ſhine. It doth ſmell alſo, and adorn the face, as Beotius ſaith, de diſcip. ſchool.

Why hath man the worſt ſmell of all living creatures, as it doth appear, lib. de animal.

Becauſe the man (as the commentator ſaith) in reſpect of his quantity hath the moſt brain of all creatures; and therefore by that exceeding coldneſs and moiſtneſs the brain wanteth a good diſpoſition, and by conſequence the ſmelling inſtrument is not good, as Ariſtotle and Themiſtocles do teach; yea, ſome men there be which do not ſmell at all.

Why do the vulture or cormorant ſmell very well, as the commentator doth ſay?

Becauſe they have a very dry brain, and therefore the air carrying the ſmell, is not hindered by the humidity of the brain, but doth preſently touch its inſtrument; and therefore he ſaith, that the vultures, tygers, and other beaſts, come five hundred miles to the dead bodies after a battle in Greece.

Why did nature make the noſtrils?

For three commodities. Firſt, becauſe that the mouth being ſhut, we draw breath in by the noſtrils to refreſh the heart with. The ſecond commodity is, becauſe that the air which proceedeth from the mouth doth ſavour badly, becauſe of the vapours which riſe from the ſtomach, but that which we breathe from the noſe is not noiſome. The third is, becauſe the phlegm which doth proceed from the brain is purged by them.

Why doth men ſneeze?

Becauſe that the expulſive virtue of power and the ſight ſhould thereby be purged, and the brain alſo from ſuperfluities, becauſe that the lungs are purged by coughing, ſo is the ſight and brain by ſneezing; and thoſe who ſneeze often

are ſaid to have a ſtrong brain; and therefore the phyſicians give ſneezing medicaments to purge the brain, and ſuch ſick perſons as cannot ſneeze die quickly, becauſe it is a ſign their brain is wholly ſtuffed with evil humours, which cannot be purged.

Why do ſuch as are apoplectic ſneeze; that is, ſuch as are ſubject eaſily to bleed?

Becauſe the paſſages or ventricles of the brain are ſtopped in them; and if they could ſneeze, their apoplexy would be looſed.

Why doth the heat of the ſun provoke ſneezing, and not the heat of the fire?

Becauſe the heat of the ſun doth now diſſolve and not conſume; and therefore the vapour diſſolved is expelled by ſneezing; but the heat of the fire doth diſſolve and conſume, and therefore rather doth hinder ſneezing than provoke.

Of the EARS.

WHY do beaſts move their ears and not men?

Becauſe there is a certain muſcle near unto the jaw which doth cauſe motion in the ear; and therefore, that muſcle being extended and ſtretched, men do not move their ear, as it hath been ſeen in divers men, but all beaſts do uſe that muſcle or fleſhy ſinew, and therefore do move their ears.

Why is rain prognoſticated by the pricking up of aſſes ears?

Becauſe the aſs is a very melancholy beaſt, and it proceedeth from melancholy that he doth foreſee rain to come. In the time of rain all beaſts do prick up their ears, and therefore the aſs, perceiving that it will rain, doth prick up his ears before it come.

Why have ſome beaſts no ears?

Ariſtotle doth anſwer and ſay, that nature doth give unto every thing that which is fit for it; but if ſhe ſhould have given birds ears, their flying would have been hindered by them; likewiſe fiſh do want ears, becauſe they would hinder their ſwimming, and have only certain little holes through which they hear, as Ariſtotle declares by the ſea-calf.

Why have bats ears, ſeeing they ſeem to be birds?

Becauſe

Becauſe they are partly birds in nature, in that they do fly, by reaſon whereof they have wings, and partly they are hairy, becauſe they are mice; therefore nature, as being wiſe, gave them ears.

Why have men only round ears?

Becauſe the ſhape of the whole and of the parts ſhould be proportionable, and eſpecially in all things of one nature; or as a drop of water is round, ſo the whole water, John de ſacro Boſco doth prove; and ſo becauſe a man's head is round, the ears incline towards the ſame figure; but the heads of beaſts are ſomewhat long, and ſo the ears are drawn into length alſo.

Why did nature give living creatures ears?

For two cauſes: 1. Becauſe with them they ſhould hear. 2. Becauſe that by the ear choleric ſuperfluity is purged; for as the head is purged of phlegmatic ſuperfluity by the noſe, ſo from choleric by the ears.

Of the MOUTH.

WHY hath the mouth lips to compaſs it?

According to Conſt. becauſe the lips do cover and defend the teeth, it were unſeemly that the teeth ſhould always be ſeen. Another anſwer is, that the teeth are of a cold nature, and would therefore be ſoon hurt if they were not covered with lips. Another moral reaſon is, becauſe a man ſhould not be too haſty of ſpeech.

Why hath a man two eyes, two ears, and but one mouth?

Becauſe a man ſhould ſpeak but little, and hear and ſee much. And withal, Ariſtotle doth ſay, that the hearing in the light doth ſhew us the difference of many things; and Seneca doth agree unto this, affirming that nature environed the tongue with a double cloiſter, and teeth, and lips, and has made the ears open and wide, and has given us but one mouth to ſpeak but little, though we hear much.

Why hath a man a mouth?

For many commodities: 1. Becauſe the mouth is the gate and door of the ſtomach. 2. Becauſe the meat is chewed in the mouth, and prepared and made ready for the firſt digeſtion, although Avicen. doth hold that digeſtion is made in the mouth. 3. Becauſe that the air drawn unto the hollow of the mouth for the refreſhing of the heart is made more

more pure and ſubtile. And for many other cauſes, which ſhall hereafter appear.

Why are the lips moveable?

Becauſe of forming the voice and words, which cannot be perfectly done without them. For as without a, b, c, there is no writings; ſo without the lips no voice can be well formed.

Why do men gape?

This gloſs upon the laſt part of Hippocrates's Aphoriſms ſaith, that it proceeds of weariſomeneſs, as when a man ſitteth among ſuch as he doth not know, whoſe company he would willingly be rid of. Beſides, gaping is cauſed of the thick fume and vapours that fill the jaws, by the expulſion of which is cauſed the ſtretching out and expulſion of the jaws, and opening of the mouth, which is called gaping.

Why doth a man gape when he ſeeth another man gape?

This proceedeth of imagination. And this is proved by a ſimilitude; for an aſs is animal valde ſenſible, by reaſon of his melancholy, becauſe he doth retain his ſuperfluity a long time, and would neither eat nor piſs, unleſs he ſhould hear another piſs; and ſo a man gapes through imagination when another man doth gape.

Of the TEETH.

WHY do they only, amongſt all other bones, feel the ſenſe of feeling?

Becauſe, as Avicen. and Galen do ſay, they might diſcern of heat and cold which hurt them, which other bones need not.

Why have men more teeth than women?

By reaſon of the abundance of heat and blood which is more in men than in women.

Why do the teeth grow to the end of our life, and not the other bones?

Becauſe otherwiſe they would be conſumed with chewing and grinding.

Why do the teeth only come again when they fall, or be taken out, and other bones taken away grow no more?

Becauſe that, according to Ariſtotle, all other bones are engendered of the humidity which is called radical, and ſo they breed in the womb of the mother, but the teeth are engendered

engendered of nutritive humidity, which is renewed and increaſed from day to day.

Why do the fore teeth fall in youth, and grow again, and not the cheek-teeth?

This proceedeth of the defect of matter, and of the figure, becauſe the fore-teeth are ſharp, and the others broad. But, according to Ariſtotle, there is another anſwer; that is, that it is the office of the fore teeth to cut the meat, and therefore they are ſharp; and the office of the other to chew the meat, and therefore they are broad in faſhion, which is fitteſt for that purpoſe.

Why do the fore-teeth grow the ſooneſt?

Becauſe we want them ſooner in cutting than the other in chewing.

Why do teeth grow black in the old age of human creatures?

This proceedeth of the corruption of the meat, and the corruption of phlegm, with a naughty choleric humour.

Why are colts teeth yellow, and of the colour of ſaffron when they are young, and wax white when they be old?

Ariſtotle ſaith, that a horſe hath abundance of watery humours in him, which in his youth are digeſted and converted into groſſineſs; but in old age heat is diminiſhed, and the watery humours remain, whoſe proper colour is white.

Why did nature give living creatures teeth?

Ariſtotle ſaith *(Lib de generat. animal)* to ſome to fight with, and for defence of their lives, as unto wolves and bats: unto ſome to eat with, as unto horſes; unto ſome for the forming of their voice, as unto men, "as it appeareth by the commentary in the book de animal."

Why do horned beaſts want their upper cheek teeth?

According to Ariſtotle in his book de animal, horns and teeth are cauſed of the ſelf ſame matter, that is, of nutrimental humidity, and therefore the matter which paſſeth into horns turneth not into teeth, conſequently want the upper teeth. And ſuch beaſts, according unto Ariſtotle, cannot chew well; whereupon for want of teeth they have two ſtomachs by conſequence, and ſo do chew their meat twice: and they do firſt convey their meat into the firſt ſtomach or belly, and then return it from whence it came, and chew it.

Why

Why are ſome creatures brought forth with teeth, as kids and lambs, or ſome without as men?

Nature doth not want in things neceſſary, nor abound in things ſuperfluous; and therefore, becauſe theſe beaſts not long after they be fallen do need teeth, are fallen with teeth; but men are nouriſhed with their mother's drugs for a time, and therefore for a time do not want teeth?

Why have not birds teeth?

Becauſe the matter of teeth paſſeth into their beak and therefore there is their digeſtion: or elſe it is anſwered, that although they do not chew with teeth, yet their head in digeſtion doth ſupply the want of teeth.

Of the TONGUE.

WHY is the tongue full of pores?

According to Ariſtotle de animal, becauſe the tongue is the means whereby we taſte; and through the mouth, in the pores of the tongue, the taſte doth come into the ſenſe of taſting. Otherwiſe it is anſwered, that frothy ſpittle is ſent into the mouth by the tongue from the lungs moiſtening the meat, and making it ready for the firſt digeſtion: and therefore the tongue is full of pores, becauſe many have paſſage through it.

Why doth the tongue of ſuch as are ſick of agues judge all things bitter?

Becauſe the ſtomach of ſuch perſons is filled with choleric humours, and choler is very bitter, as it appeareth by the gall, and therefore this bitter fume doth infect their tongue, and ſo the tongue being full of theſe taſtes, doth judge them bitter, although the bitterneſs be not in the meat but in the tongue.

Why doth the tongue water when we hear ſour and ſharp things named.

Becauſe the imaginative virtue or power is of greater force than the power and faculty of taſting; and when we imagine a taſte, we conceive it by the power of taſting as by a mean, becauſe there is nothing felt by the taſte, but by means of that ſpittle the tongue doth water.

Why doth ſome ſtammer and liſp?

This happeneth from many cauſes, ſometimes through the moiſtneſs of the tongue and brain, as in children, which cannot

cannot ſpeak plainly, nor pronounce many letters. Sometimes it happeneth by reaſon of the ſhrinking of certain ſinews, which are corrupted with phlegm; for ſuch ſinews there be which go to the tongue

Why are the tougnes of ſerpents and mad dogs venomous?

Becauſe of the malignity and tumoſity of the venomous humour which doth predominate in them.

Why is a dog's tongue fit and apt for medicine, and contrariwiſe an horſe's tongue peſtiferous?

'Tis by reaſon of ſome ſecret property, or elſe it may be ſaid the tongue of a dog is full of pores, and ſo doth draw and take away the viſcoſity of the wound. Some ſay that a dog hath by nature ſome humour in his tongue, with the which by licking he doth heal; the contrary is in a horſe.

Why is ſpittle white?

By reaſon of the continual moving of the tongue whereof heat is engendered, which doth make white this ſuperfluity, which is ſpittle, as it is ſeen in the froth of water.

Why is ſpittle unſavoury and without taſte?

If it had a certain determinate taſte, then the tongue would not taſte at all, but ſhould only have the taſte of ſpittle, and ſo could not receive other taſtes.

Why doth the ſpittle of one that is faſting heal an impoſthume?

Becauſe (according to Avicen) it is well digeſted, and made ſubtile.

Why do ſome abound in ſpittle more than others?

This doth proceed of a phlegmatic complexion, which doth predominate in them, and therefore the phyſicians doth ſay, that ſuch ſhould take care of a quotidian ague, which ariſeth from the predomination of phlegm; the contrary in thoſe that ſpit little, becauſe heat abounds in them, which conſumes the humidity of the ſpittle; and ſo the defect of ſpittle is a ſign of fever.

Why is the ſpittle of a man that is faſting more ſubtile than one who is full?

Becauſe that the ſpittle is without the viſcoſity of meat, which is wont to make the ſpittle of one who is full groſs and thick.

From whence proceedeth the ſpittle of man?

From

From the froth of the lungs, which, according to the phyſicians, are the ſeat of phlegm.

Why are ſuch beaſts as often go together for generation very full of foam and froth?

Becauſe that then the lights and the heart are in a great motion of luſt, therefore there is engendered in them much frothy matter.

Why have not birds ſpittle?

Becauſe they have very dry lungs, according to Ariſtotle in his fifth book de Animal.

Why do ſuch as are called Epileprici, that is, ſuch as are overwhelmed, and as it were drowned in their own blood, and are diſeaſed, ſavour badly and corruptly?

The anſwer, according to the phyſicians, is, becauſe the pecant matter lieth in the head: but if he do vomit, then the matter is in the ſtomach; but if he piſs much, then the matter is in the paſſage of the urine; but if they begin to have ſeed, then it is in the veſſels of the ſeed, and according to this phyſicians do purge them.

Why doth the tongue loſe ſometimes the uſe of ſpeaking?

The anſwer is out of Hippocrates, That this doth happen through a palſy or apoplexy, that is a ſudden effuſion of blood, and of a groſs humour, and ſometimes alſo by infection of ſpiritus animalis in the middle cell of the brain, which hinders the ſpirits from being carried to the tongue; and ſo is Galen's meaning, for by the expreſſion of the tongue many actions of divers paſſions are made manifeſt.

Of the Roof of the MOUTH.

WHY are the fruits, before they be ripe, of a naughty reliſh, or bitter, and after ſweet?

A naughty reliſh in taſte proceedeth of coldneſs, and want of heat in groſs and thick humidity; but a ſweet taſte proceedeth of ſufficient heat, and therefore in the ripe fruit the humidity is ſubtile through the heat of the ſun, and ſuch fruits are commonly ſweet; but before they be ripe, as humidity is groſs or ſubtile for want of heat, the fruit is bitter and ſour.

Why are we better delighted with ſweet taſtes than with bitter or any other?

Becauſe

Becauſe nature is delighted with ſweetneſs; the reaſon is, becauſe a ſweet thing is hot and moiſt, and though his heart doth diſſolve and conſume ſuperfluous humidities, and by this humidity immundicity is waſhed away, but a ſharp eager taſte, by reaſon of the cold watch predominates in it, doth bind over much, and prick and offend the parts of the body in purging, and therefore we do not delight in that taſte, becauſe the phyſicians counſel us to eat nothing that is bitter, in the ſummer, nor in a great heat; and the reaſon is, becauſe bitterneſs doth breed heat, but we ſhall eat bitter things in winter only; and therefore Ariſtotle doth ſay, that ſweet things are grateful unto nature, and do greatly nouriſh

Why doth a ſharp taſte, as of vinegar, provoke appetite rather than any other.

Becauſe it is cold, and doth cool. Now it is the nature of cold to deſire and draw, and therefore is cauſe of appetite. Mark, that there are nine kinds of taſtes; three of which proceed from heat, three from cold, and three from a temperate mean.

Why do we draw in more air than we breathe out;

Ariſtotle and Albertus in their book de motu cordis, do anſwer, that much air is drawn in, and ſo converted into nutriment, which, together with the vital ſpirits, is contained in the lungs. Wherefore a beaſt is not ſuffocated ſo long as he receives air with the lungs, in which ſome part of the air remaineth alſo.

Why doth the air ſeem to be expelled and put forth, ſeeing that indeed the air is inviſible, by reaſon of its variety and thinneſs?

Becauſe the air which is received in us is mingled with vapours and fumoſity of the heart, by reaſon whereof it is made thick, and ſo is ſeen. And this is proved by experience, becauſe that in winter we ſee our breath, for the coldneſs of air doth bind the breath mixed with fumoſities, and ſo it is thickened and made groſs, and by conſequence is ſeen.

Why have ſome men a ſtinking breath?

The anſwer is, according to the phyſicians, becauſe there riſe evil fumes from the ſtomach; and ſometimes it doth proceed from the corruption of the airy parts of the body, as of the lungs. And the breath of lepers is ſo infected,

that it doth poiſon the birds that are near them, becauſe the inward parts are very corrupt, as appears by Conſt. de ſin. Now the leproſy is a nouriſhment of all the parts of the body, together with a corrupting of them; and it doth begin in the blood, and exterior members of the body.

Why are lepers hoarſe?

Becauſe that in them the vocal inſtruments are corrupted, that is the lights.

Why do men become hoarſe?

Becauſe of the rheum deſcending from the brain filling the conduit of the lights; or ſometimes through ſome impoſthumes of the throat, or rheum gathering in the neck.

Why have females of all living creatures the ſhrilleſt voice, a crow only accepted, and a woman ſhriller than a man, and a ſmaller?

According to Ariſtotle, by reaſon of the compoſition of the veins the vocal arteries of voice is formed, as appears by a ſimilitude, becauſe a ſmall pipe ſounds ſhriller than a great. And alſo in women, becauſe the paſſage where the voice is formed is made narrow and ſtraight, by reaſon of cold, it being the nature of cold to bind; but in men the paſſage is open and wider through heat, becauſe it is the property of heat to open and diſſolve. It proceedeth in women through the moiſtneſs of the lungs and weakneſs of the heat. Young men and diſeaſed have ſharp and ſhrill voices for the ſame cauſe. And this is the natural cauſe why a man child at his birth doth cry a. i. which is a bigger ſound, and the female e. which is a ſlender ſound, as it pleaſeth Libertinus, when he ſaith Maſculas a profert.

Why doth the voice change in men and women; in men at fourteen, in women at twelve; in men when they begin to yield ſeed; in women when their breaſts begin to grow, as Ariſtotle ſays, Lib. de animal.

Becauſe then, ſaith Ariſtotle, the beginning of the voice is ſlackened and looſened; and he proves this by a ſimilitude of a ſtring of an inſtrument let down or looſed, which gives a great ſound. He proves it another way, becauſe creatures which are gelded, as eunuchs, capons, &c. have ſofter and ſlenderer voices than others, by reaſon they want ſtones.

Why is not a wolf hoarſe when a man looks on him?

Becauſe a man is not ſo cold as a wolf, nor of ſo malignant a quality.

Why

Why doth a man which is ſlain bleed when he is ſeen of him who killed him?

This proceedeth of divine cauſe, and not of a natural, becauſe his blood calleth for vengeance againſt the murderer; but if there be any natural cauſe of it, it is this: the committer of this wicked fact calling it to mind, is very ſorry for it, and repents him of it; is in anguiſh of mind, and in a great heat through the imagination he hath conceived, and by that means all his ſpirits do ſtir and boil, and repair into the inſtruments of the ſight of the eyes, unto the wounds which are made, which if they be freſh, do preſently fall a bleeding. Beſides, this is done by the help of the air then breathed in, which, being drawn from the wound, cauſeth it to bleed.

Why do ſmall birds ſing more and louder than great ones, as appears in the lark and nightingale?

Becauſe the ſpirits of ſmall birds are ſubtile and ſoft, and the organ conduit ſtrait, as appeareth in a pipe, and therefore follow eaſily any deſire, and ſo do ſing very ſoft.

Why doth the male ſing more than the female, as appeareth in all living creatures?

It proceedeth from the deſire of carnal copulation, becauſe that then the ſpirits are moved throughout all the body with the aforeſaid appetite and deſires. And generally ſpeaking, the females are colder than the males.

Why do bees, waſps, flies, locuſts, and many other ſuch like inſects, make a noiſe, ſeeing they have no lungs, nor inſtruments of the voice?

According to Ariſtotle, there is in them a certain ſmall ſkin, which when the air doth ſtrike, it cauſeth the ſound, and there is a ſtrange ſound.

Why do not fiſh make a ſound?

Becauſe, according to Ariſtotle, they have no lungs, but only gills, nor yet a heart; and therefore they need not the drawing in of the air, and by conſequence they make no noiſe, becauſe that (according to Ariſtotle) a voice is a percuſſion of the air which is drawn.

Of the NECK.

WHY hath a living creature a neck?

Becauſe the neck is the ſupporter of the head, as Ariſtotle teacheth; and therefore the neck is the middle between the head and the body, to the intent that by it, and by its ſinews, as by certain means and ways, motion and ſenſe of the body might be conveyed throughout all the body; and that by means of the neck, as it were by a diſtance, the heart, which is very hot, might be ſeparated from the brain.

Why do ſome beaſts want necks, as ſerpents and fiſhes?

Becauſe ſuch beaſts want a heart, and therefore they want that diſtance which we have ſpoken of; or elſe we anſwer, they have a neck in ſome inward part of them, but it is not diſtinguiſhed outwardly from the heart to the head.

Why is the neck full of bones and joints?

Becauſe it may bear and ſuſtain the head the ſtronger; alſo becauſe the back bone is joined to the brain in the neck, and from thence it receives marrow, which is of the ſubſtance of the brain.

Why have ſome beaſts long necks, as cranes, ſtorks, and ſuch like?

Becauſe ſuch beaſts do ſeek their living in the bottom of the water, and therefore have ſuch necks; and ſome beaſts have ſhort necks; as ſparrows, hawks, &c. becauſe ſuch are ravenous beaſts, and therefore for ſtrength have ſhort necks; as appeareth in the ox, which has a ſhort neck, and therefore ſtrong.

Why is the neck hollow, and eſpecially before about the tongue?

Becauſe there be two paſſages, whereof the one doth carry the meat unto the nutritive inſtrument, as to the ſtomach and liver, and is called of the Greeks Oeſapeagus; and the other is the windpipe.

Why is the artery made with rings and circles?

The better to bow and give a good ſounding again.

Why doth a chicken move a good ſpace after his head is cut off, and a man beheaded never ſtirreth?

Becauſe chickens and ſuch like have ſtraight ſinews and arteries,

arteries, and therefore the ſpirit of moving continueth long after the head is off: but men, and many beaſts, have long and large ſinews and arteries, and therefore the moving ſpirits do quickly depart from them, and ſo by conſequence cannot move their bodies.

Of the SHOULDERS and ARMS.

WHY hath a man ſhoulders and arms?

To give and carry burdens, according to Ariſtotle.

Why are his arms round?

For the ſwifter and ſpeedier work, becauſe that figure is fitteſt to move?

Why are his arms thick?

Becauſe they ſhould be ſtrong to lift and bear burdens, or thruſt and give a ſtrong blow: ſo their bones are thick, becauſe they contain much marrow, for they would be eaſily corrupted and marred; but marrow cannot ſo well be contained in ſmall bones as in great.

Why do ſuch as are diſeaſed and in grief uncover and cover their arms, and ſuch alſo as are in agony?

Becauſe ſuch are near unto death; and it is a ſign of death by reaſon of great grief which cauſeth that uncovering, as Hippocrates doth teach, lib. Prognoſt.

Why do the arms become ſmall and ſlender in ſome ſickneſs, as in madmen, and ſuch as are ſick of the dropſy?

Becauſe all the parts of the body do ſuffer the one with the other, and therefore one member being in grief, all the humours do concur and run thither to give ſuccour and help to the aforeſaid grief. For when the head doth ach, all humours of the arms doth run into the head, and therefore the arms become ſmall and ſlender, becauſe they want their proper nutriment.

Why have brute beaſts no arms?

Their fore feet are inſtead of arms, and in their place; or elſe we may anſwer more fitly, becauſe all beaſts have ſome part for their defence and to fight with, as the wolf his feet, the cow her horns, the horſe his hinder feet, birds their beak and wings, but only man hath his arms.

Of the HANDS.

FOR what uſe hath a man hands, and an ape alſo which is like unto a man?

The hand is an inſtrument which a man doth eſpecially make uſe of, becauſe many things are done by the hands, and not by any other part, as Ariſtotle doth teach.

Why are ſome men ambo dexter, that is, uſe the left hand as the right?

By reaſon of the great heat of the heart, and for the hot bowing of the ſame, for it is that which makes a man as nimble of the left hand as of the right; and without doubt are of good complexions.

Why are not women ambo dexter as well as men. Hid. ult. Aphoriſm.

Becauſe, as Galen ſaith, a woman in health that is moſt hot, is colder than the coldeſt man in health; I ſay in health, for if ſhe hath an ague ſhe is accidentally hotter than a man.

Why are the fingers full of joints?

To be more fit and apt to receive, and keep the things received.

Why hath every finger three joints, and the thumb but two?

The thumb hath three, but the third is joined unto the arm, therefore is ſtronger than the other fingers; and is called pollox a polleo, that is, to excel in ſtrength.

Why are the fingers of the right hand nimbler than the fingers of the left, as Ægidius ſaith?

It proceedeth from the heat which doth predominate in thoſe parts, which cauſeth great agility.

Why are the fingers thicker before meat than after, as Albertus ſaith?

According to the phyſicians, becauſe a man which is faſting is full of bad humours and divers fumoſities, which puffs up the parts of the body, and the fingers alſo: but when thoſe humours are expelled through meat, the fingers become more ſlender. And for the ſame reaſon, a man which is faſting is heavier than when he hath meat in his belly, as is moſt plain in faſters. Another reaſon may be given, that is, becauſe that after meat the heat is depart-

ed

ed from the outward parts of the body into the inward, to help digeſtion, and the outward and external parts become ſlender; but after the digeſtion is made, the blood turneth again to exterior parts, and then they become great again.

Why are ſome men left handed?

Becauſe the heart ſendeth out heat into the right ſide but more into the left, and doth alſo work a ſlenderneſs and ſubtility on the left ſide.

Of the NAILS.

FROM whence do nails proceed?

Of the fumoſity and humours, which are reſolved and go into the extremities of the fingers, and they are dried through the power of the external air, and brought to the hardneſs of a horn.

Why do the nails of old men grow black and pale?

Becauſe the heat of the heart decayeth, which decaying, their beauty decayeth alſo.

Why are men judged to be good or evil complexioned by the colour of their nails?

Becauſe they give witneſs of the goodneſs or badneſs of the heart, and therefore of the complexion; for if they be ſomewhat red they betoken choler well tempered; but if they be yellowiſh or black, they ſignify melancholy.

Why do white ſpots appear in the nails?

Through mixture of phlegm with the nutriment.

Of the BREAST.

FOR what reaſon is the breaſt hollow?

Becauſe there is the ſeat of the ſpiritual and aerial members, which are moſt noble, as the heart and lights; and therefore, becauſe theſe might be kept from hurt, it was neceſſary that the breaſt ſhould be hollow.

Why hath a man the broadeſt breaſt of all living creatures?

Becauſe the ſpirits of men are weak and ſubtile, and therefore do require a ſpacious place wherein they are contained, as the breaſt is.

Why are the breaſts of beaſts round?

Becauſe

Becauſe they be in continual motion, and that figure is under the breaſt; and therefore that which the heart doth love we draw to the breaſt, by reaſon of the neighbourhood it has with the heart, ſo applying the thing loved unto the lover.

Why have women narrower breaſts than men?

Becauſe there is more heat in men, which doth naturally move to the uppermoſt part of them, making thoſe parts great and large; and therefore a great breaſt is a token of courage, as Ariſtotle ſaith, declaring this to be true by the lion and bull: but in women cold predominates, which naturally tends downwards, and therefore ſaith Ariſtotle, women often fall on their tail, becauſe their hinder parts are groſs and heavy, by reaſon of cold aſcending thither; but a man commonly falls on his breaſt, by reaſon of his greatneſs and thickneſs.

Of the PAPS and DUGS.

WHY are paps placed upon the breaſts?

Becauſe the breaſt is the ſeat of the heart, which is moſt hot, and therefore the paps grow there, to the end that the menſes being conveyed thither, as being near to the heat of the heart, ſhould the ſooner be digeſted, and perfected, and converted into the matter and ſubſtance of milk.

Why are the paps below the breaſts in beaſts, and above the breaſts in women?

Becauſe a woman goes upright, and has two legs only; and therefore, if her paps ſhould be below her breaſts they would hinder her going; but beaſts have four feet, and therefore they are not hindered in their going.

Why have not men as great paps and breaſts as women?

Becauſe a man hath no monthly terms, and therefore hath no veſſel deputed for them. And yet Ariſtotle ſaith, that men have ſmall paps, and women have little ſmall ſtones.

Which paps are beſt for children to ſuck, great ones or little ones, or the mean between both?

In great ones the heat is diſperſed, and there is no good digeſtion of milk; but in ſmall ones the power and force is ſtrong, becauſe a virtue united is ſtrongeſt, and by conſequence there is good working and digeſtion of the milk, and therefore

therefore the ſmall are better than the great ones; but yet the mean ones are beſt of all, becauſe every mean is beſt.

Why do the paps of young women begin to grow about 13 or 15 years of age, as Albertus ſaith?

Becauſe then the flowers have no courſe to the teats, by which the young one is nouriſhed, but follow their ordinary courſe, and therefore wax ſoft.

Why hath a woman, which is with child of a boy, the right pap harder than the left?

Becauſe the male child is conceived in the right ſide of the mother, as Hippocrates ſaith, and therefore the flowers do run to the right pap and make it hard.

Why doth it ſhew weakneſs of the child when the milk doth drop out of the paps before the woman be delivered?

According to Ariſtotle, becauſe the milk is the proper nutriment of the child in the womb of the mother; and therefore, if the milk run out, it is a token that the child is not nouriſhed, and therefore is weak.

Why doth the hardneſs of the paps betoken the health of the child in the womb?

Becauſe the flowers are converted into milk, and that milk doth ſufficiently nouriſh the child, and thereby the ſtrength is ſignified.

Why hath a woman but two paps, and ſome brute beaſts ten or more?

Becauſe for the moſt part a woman hath but one child, either boy or girl, and therefore one pap is ſufficient, or two; but beaſts have many young ones, and therefore ſo many teats.

But why are women's paps hard when they be with child, and ſoft at other times?

They ſwell then, and are puffed up, becauſe the great moiſture which proceeds from the flowers doth run into the paps, which at other ſeaſons remaineth in the matrix or womb, and it is expelled by the place deputed for that end.

By what means doth the milk of the paps come to the matrix or womb?

According to Hippocrates, becauſe there is a certain knitting and coupling of the pap with the womb, and there are certain veins which the midwives do cut in the time of the birth of the child, and by thoſe veins the milk do flow in at the navel of the child, and ſo it receives nutriment by the navel.

navel. Some ſay the child in the womb is nouriſhed at the mouth, but it is falſe, becauſe that ſo he ſhould void excrements alſo; but that is falſe, becauſe it is not ſeen where.

Why is it a ſign of a male child in the womb when the milk that runneth out of the woman's breaſt is thick and not much, and of a female when it is thin?

Becauſe a woman that goeth with a boy hath great heat in her, which doth perfect the milk and make it thicker; but ſuch as go with a girl hath not ſo much heat, and therefore the milk is undigeſted, and unperfected, and watery, and thin, and will ſwim above the water if it be put into it.

Why is the milk white, ſeeing the flowers are red which it is engendered of?

Becauſe blood which is well purged and concocted becometh white, as appeareth in fleſh, whoſe proper colour is red, and being boiled is white. Another anſwer is, becauſe every humour which is engendered of ſuch part of the body is made like unto that part in colour where it is engendered as near as it can be; but becauſe the fleſh of the paps is white, therefore the colour of the milk is white.

Why doth a cow give milk more abundantly than other beaſts?

Becauſe ſhe is a great eating beaſt; and where is much monthly ſuperfluity engendered there is much milk, becauſe it is nothing elſe but that blood purged and tried; and becauſe a cow has much of this monthly blood, ſhe has much milk.

Why is not milk wholeſome, Hippocrates ſaith, Par. 2. Aphor.

According to the opinion of Galen, for divers reaſons: Firſt, becauſe it doth crudle in the ſtomach, whereof an evil breath is bred. But to this Hippocrates gives this remedy; ſaying, if the third part of it be mingled with running water, then it is not hurtful. Another reaſon is, becauſe the milk doth grow ſour in the ſtomach where evil humours are bred, which infect the breath.

Why is milk bad for ſuch as have the headach?

Becauſe it is eaſily turned into great fumoſities, and hath much terreſtrial ſubſtance in it, the which aſcending doth cauſe the headach.

Why is milk fit nutriment for infants?

Becauſe

Becauſe it is a natural and uſual food, and they were nouriſhed by the ſame in the womb.

For what reaſon are the white meats made of a new milked cow good?

Becauſe milk at that time is very ſpungy, expel many fumoſities, and does as it were purge at that time.

Why is the milk naught for the child if the woman uſes carnal copulation?

Becauſe in time of carnal copulation the beſt part of the milk goes to the ſeed veſſels, and to the womb, and the worſt remains in the paps, which doth hurt to the child.

Why is the milk of brown women better than that of white?

Becauſe brown women are hotter than others, and heat purges the milk, and ſo it is better.

Why do phyſicians forbid the eating of fiſh and milk at the ſame time?

Becauſe they produce a leproſy, and becauſe they are both phlegmatic.

Why have not birds and fiſh milk and paps?

Becauſe paps would hinder the flight of birds; the fiſh alſo have neither paps nor milk, as Ariſtotle ſaith, but the females caſt much ſpawn, on which the male touches with a ſmall gut, which cauſes their kind to be infinite in ſucceſſion.

Of the BACK.

WHY have beaſts backs?

According to Ariſtotle, for three cauſes; firſt, becauſe the back ſhould be the way and mean of body from which are extended and ſpread throughout all the ſinews of the back-bone, as it appears in ſuch as are hanged; becauſe when they are in pieces, or without fleſh, the ſinews hang whole in the chine or back-bone. The ſecond, becauſe it ſhould be a guard and defence for the ſoft parts of the body, as of the ſtomach, liver, lights, and ſuch like. The third, becauſe it ſhould be the foundation of all the bones, becauſe we ſee other bones, as the ribs, faſten to the back-bone.

Why hath man above all other creatures a broad back which he can lie upon, which no beaſt can do?

Becauſe

Becauſe a broad back doth anſwer a broad breaſt; if therefore a man ſhould have a ſharp back like unto a beaſt, that would be of an unſeemly ſhape; and therefore it is requiſite that he have a broad back.

Why hath a man that lieth on his back horrible viſions?

Becauſe the paſſage or ſign of the fantaſy is open, which is in the fore part of the brain, and ſo the fantaſy is deſtroyed, and then thoſe viſions follow. Another reaſon is, becauſe when a man lieth on his back, the humours are diſtributed and moved upward where the fantaſy is, which by that means is diſtributed.

Why is it naught to lie on the back?

Becauſe, as the phyſicians ſay, it diſpoſes a man to leproſy, madneſs, and to an incubus, where you may note that mania, or madneſs, is the hurt or diſturbance of the forepart of the brain, which is taken away, or depravation of the imagination; but incubus (i. e. the night mare) is a paſſion of the heart, wherein a man thinks himſelf to be ſtrangled in his ſleep, and ſomething lies heavy on his ſtomach, which he would put off.

Why hath the back bone ſo many joints or knots, called ſpondelia by the phyſicians?

For the moving and bending it, without which joints that could not be done; and therefore they ſay amiſs that elephants have no ſuch joints, for without them they could not move.

Why do fiſh die after their back-bone is burſt?

Becauſe in fiſh the back-bone is inſtead of the heart. Now the heart is the firſt thing that lives and the laſt that dies, and therefore when the bone is broke fiſh can live no longer.

Why does a man die ſoon after the marrow is hurt or periſhed?

Becauſe the marrow proceeds from the brain, which is a principal part of a man; as appears, firſt, becauſe the marrow is white like the brain; and ſecondly, becauſe it hath a thick ſkin or rind, which that called nucha has not, which differs from the marrow, becauſe two coverings like the brain, called pia mater and dura mater.

Why have ſome men the piles?

Thoſe men are cold and melancholy, which melancholy firſt paſſes to the ſpleen, its proper ſeat; but there cannot be retained for the abundance of blood; for which reaſon it

it is conveyed to the back-bone, where there are certain veins which terminate in the back, and receive the blood. When thoſe veins are full of the melancholy blood, then the conduits of nature are opened, and the blood iſſues out once a month, like women's terms. Thoſe men who have this courſe of blood are kept from many infirmities, as dropſy, plague, &c.

Why are the Jews much ſubject to this diſeaſe?

Divines ſay, becauſe they cried at the death of Chriſt, Let his blood fall upon us and our children: Therefore it is ſaid in the pſalms, "Percuſſit eos Deus poſteriæ doci." Another reaſon is, becauſe the Jews eat much phlegmatic and cold meats, which breed melancholy blood but it is purged with the flux: A third reaſon is, motion cauſes heat, and heat digeſtion; but ſtrict Jews neither move, labour, nor converſe with men; beſides they are in continual fear we ſhould revenge the death of our Saviour, which like wiſe breeds a coldneſs in them, and hinders digeſtion, cauſing melancholy blood, which is by this means purged out.

Of the HEART.

WHY are the heart and lungs called lively parts of the body, in Latin Spirituala membrana?

From the word Spiritus, which ſignifies breath, life or ſoul; and becauſe the vital ſpirits are engendered in the heart. Yet that is no good anſwer, for the liver and brain might be ſo called, becauſe the liver giveth nutriment, and the brain ſenſe and life; the conſequence is clear, for the vital ſpirits are engendered in the liver, and the ſenſible and animal ſpirits in the brain.

Why are the lungs light ſpungy, and full of holes?

That the air may the better be received in them for cooling the heart, and expelling humours, becauſe the lungs are the fan of the heart; and as a pair of bellows is raiſed up by taking in the air, and ſhrunk by blowing it out, ſo likewiſe the lungs draw the air to cool the heart and caſt it out, leſt through too much heat of the air drawn in the heart ſhould be ſuffocated.

Why is the fleſh of the lungs white?

Becauſe they are in continual motion.

Why have thoſe beaſts only lungs that have hearts?

Becauſe the lungs be no part for themſelves, but for the heart: and therefore it were ſuperfluous for thoſe creatures to have lungs that have no hearts; but nature is never wanting in things neceſſary, nor abounds in ſuperfluities.

Why do ſuch creatures as have no lungs want a bladder?

Becauſe ſuch drink no water to make their meat digeſt, but only for the tempering their food, and therefore they want a bladder and urine: as appears in ſuch birds as do not drink at all, viz. the falcon and ſparrow-hawk.

Why is the heart in the midſt of the body?

Becauſe it ſhould impart life to all the parts of the body, and therefore it is compared to the ſun, which is placed in the midſt of the planets, to pour light into them all; therefore the Pythagoreans ſtiling the heavens a great living creature, ſay, the ſun is the heat thereof.

Why only in men is the heart on the left ſide?

To the end the heat of the heart ſhould mitigate the coldneſs of the ſpleen, for the ſpleen is the ſeat of melancholy, which is on the left ſide alſo.

Why is the heart firſt engendered; for, according to Ariſtotle, the heart doth firſt live, and die laſt?

Becauſe, as Ariſtotle ſaith, de juvent. and ſenect. the heart is the beginning and original of life and without it no part can live. According to the philoſopher, of the ſeed retained in the matrix there is firſt engendered a little ſmall ſkin which compaſſes the ſeed whereof firſt the heart is made of the pureſt blood; then of blood not ſo pure, the liver; and of thick and cold blood, the marrow and brain.

Why are beaſts bold that have little hearts?

Becauſe in a little heart the heat is well united and vehement, and the blood touching it, doth quickly heat it, and is ſpeedily carried to the other parts of the body, which gives courage and boldneſs.

Why are creatures with a large heart timorous, as the hare?

The heart is diſperſed in ſuch a one, and not able to heat the blood which cometh to it, and ſo fear is bred.

How comes it that the heart is continually moving?

According to Ariſtotle de mortu cordis, and Galen it is becauſe in it there is a certain ſpirit which is more ſubtile than air, which by reaſon of its thickneſs and [illegible] ſeeks a larger ſpace, filling the hollow room of the heart, whereof

whereof the dilating and opening of the heart doth follow: and becauſe the heart is earthly, the thruſting and moving ceaſing, its parts are at reſt, tending downwards. Galen giveth an experiment of an acorn, which, if put into the fire, the heat diſſolves its humidity, therefore doth occupy a greater ſpace, ſo that the rind cannot contain it, but puffs it up and throws it into the fire. The like of the heart; therefore note, that the heart of a living creature is triangular in a manner, having its leaſt part towards the left ſide, and the greater towards the right, and doth alſo open and ſhut in the leaſt part, by which means it is in a continual motion; the firſt motion is by the phyſicians called Diaſtole, that is, extending the breaſt or heart; the other Syſtole, i. e. ſhutting of the heart; and from theſe two all the motions of the body proceed, and that of the pulſe which phyſicians feel.

Why are great beaſts lean?

The natural heat proceeding from the heart conſumes that natural humidity which ſhould be converted into fat. And for the moſt part women are hotter than men, becauſe they have much humidity in them, and a moiſter heart than men.

How comes it that the fleſh of the heart is ſo compact and knit together?

It is becauſe in thick compacted ſubſtances heat is ſtrongly received and united, as appears in other things. And becauſe the heart with its heat ſhould moderate the coldneſs of the brain, it is made of that fat fleſh apt to keep a ſtrong heat.

How comes the heart to be the hotteſt part of all living creatures?

It is ſo compacted as to receive heat beſt, and becauſe it ſhould mitigate the coldneſs of the brain.

Why is the heart the beginning of life?

It is plain in it the vital ſpirit is bred, which is the heat of life; and therefore, according to the opinion of Auguſt. de different ſpirit & anima, the heart hath two receptacles, i. e. the right and the left; the right hath more blood than ſpirits, which ſpirit is engendered, to give life and vivify the body.

Why is the heart long and ſharp like a pyramid?

The round figure hath no angles, therefore the heart is round, for fear any poiſon or hurtful matter ſhould be retain-

ed in it; and as Ariſtotle affirms, becauſe that figure is fitteſt for motion.

How comes the blood chiefly to be in the heart?

The blood is in the heart as in its proper or efficient place, which ſome attribute to the liver; and therefore the heart doth not receive blood of any other parts, but no other parts of it.

How happen it that ſome creatures want a heart?

Although they have no heart, yet they have ſomewhat that anſwers it, as appears in eels, and fiſh which have the back-bone inſtead of a heart.

Why does the heart beat in ſome creatures when the head is off, as appears in birds and hens?

Becauſe the heart is what lives firſt and dies laſt, and therefore beats more than other parts.

Why doth the heat of the heart ſometimes fall of a ſudden, as in thoſe who have the falling ſickneſs.

This proceeds, according to Conſtant. from a defect of the heart itſelf, and of certain ſmall ſkins with which it is covered, the which being infected and corrupted the heart falleth on a ſudden; and ſometimes it happens by reaſon of the parts adjoining, and therefore, when any venomous humour goes out of the ſtomach, that hurts the heart and parts adjoining, that cauſes this fainting; the diſpoſition of the heart is known by the pulſe, becauſe a ſwift beating pulſe ſhews the heat of the heart, and a ſlow beating one denotes coldneſs. Therefore a woman that is in health has a ſlower and weaker pulſe than a man, as ſhall appear hereafter.

Of the STOMACH.

FOR what reaſon is the ſtomach large and wide?

Becauſe in it the food is firſt concocted or digeſted as it were in a pot, to the end what is pure ſhould be ſeparated from them which is not, as Ariſtotle ſaith; and therefore, according to the quantity of the food the ſtomach is enlarged.

How comes it that the ſtomach is round?

Becauſe if it had angles and corners, as Conſtant. ſays, food would remain in them and breed ill humours, ſo a man would never want agues; which humours nevertheleſs are evacuated;

evacuated, lifted up, and consumed, and not hid in any such corners, by reason of the roundness of the stomach.

How comes the stomach to be full of sinews?

As Aristotle saith, because the sinews can be extended and enlarged, and so is the stomach when it is full; but when empty, it is drawn together, and therefore nature provides those sinews.

How comes the stomach to digest?

Because of the heat which is in it, and comes from the parts adjoining, i. e. the liver and the heart. For we see in metals, the heat of the fire takes away the rust and dross from iron, the silver from tin, and gold from copper; so that by digestion the pure is separated from the impure. Digestion is of four sorts, according to physicians.

For what reason doth the stomach join the liver?

Because the liver is very hot, and with its heat helps digestion, and provokes appetite.

Why are we commonly cold after dinner?

Because then the heat goes to the stomach to further digestion, and so the other parts become cold.

Why is it hurtful to study soon after dinner?

Because when the heat labours to help the imagination in study, it ceases from digesting the food, and that remains undigested; so that people should walk some time after meals.

How comes women with child to have an inordinate desire of eating coals, ashes, and such like?

Because such are the humours of the stomach, such a nutriment they desire; and because women with child have corrupt humours, therefore they desire the like thing.

How cometh the stomach slowly to digest meat?

Because it swims in the stomach. Now the best digestion is in the bottom of the stomach, the fat descends not there; such as eat fat meat are very sleepy, by reason digestion is hindered.

Why is all the body worse when the stomach is uneasy?

Because the stomach is knit with the brain, heart, and liver, which are the principal parts in man; and therefore when it is not well, the others are evil disposed. Another answer is, that if the first digestion be hindered, the others are also hindered; for in the first digestion is the beginning of the infirmity that is in the stomach.

Why are young men ſooner hungry than old men?

Young men do digeſt for three cauſes, firſt for growth, then for the reſtoring of life, and laſtly for conſervation of life, as Hippocrates and Galen do ſay; elſe we anſwer, that young men are hot and dry, and therefore the heat doth digeſt more, and by conſequence they deſire more.

Why do phyſicians preſcribe that men ſhould eat when they have an appetite?

Becauſe much hunger and emptineſs will fill the ſtomach with naughty rotten humours, which he draws into himſelf inſtead of meat; which do eaſily appear, becauſe that if we faſt over night we have an appetite to meat, but in the morning none. That is therefore a token that the ſtomach is filled with naughty humours, and eſpecially its mouth, which is no true filling, but a deceitful one. And therefore, after we have eaten little our ſtomach comes to us again; and then the proverb is, one morſel draweth down another: for the firſt morſel having made clean the mouth of the ſtomach, doth provoke the appetite.

Why do phyſicians preſcribe that we ſhould not eat too much at a time, but by little and little?

Becauſe when the ſtomach is full, the meat doth ſwim in it, which is a dangerous thing. Another reaſon is, that as very green wood doth put out the fire, ſo much meat choaks the natural heat and puts it out: and therefore the beſt phyſic is to uſe temperance in eating and drinking.

Why do we deſire change of meats according to the change of times; as in winter, beef, pork, mutton; in ſummer, light meats, as veal, lamb, &c.

Becauſe the complexion of the body is altered, and changes according to the time of the year. Another anſwer is, that this proceeds from the quality of the ſeaſon, becauſe the cold winter doth cauſe a better digeſtion, becauſe the ſtomach and belly is hotter in winter by reaſon of the compaſſing cold, as Hippocrates and Ariſtotle doth teach.

Why the meat we eat ſhould not be as hot as pepper and ginger?

Becauſe hot meat doth burn the blood, and diſpoſe it to a leproſy. So contrariwiſe, meat too cold doth mortify and congeal the blood. And our meat ſhould not be over ſharp, becauſe it procureth old age, and too much ſauce doth burn the entrails, and procureth often drinking, as raw meat doth;

doth; and over ſweet meats do conſtipate and cling the veins together.

Why is it a good cuſtom to eat cheeſe after dinner, and pears after all meat?

Becauſe cheeſe, by reaſon of its earthlineſs and thickneſs, tendeth down towards the bottom of the ſtomach, and ſo putteth down the meat, and the like of pears. Note, that new cheeſe is better than old, and the old dry ſoft cheeſe is very naughty and procureth the headach, and ſtopping of the liver; and the older the worſer. Whereupon it is ſaid, that the cheeſe is naught, and digeſteth all things but itſelf.

Why be nuts good after fiſh? and the verſe is,

After fiſh nuts; after fleſh cheeſe.

Becauſe fiſh is of a hard digeſtion, and doth eaſily putrify and corrupt: and nuts help digeſtion, becauſe they be ſomewhat hot; fiſh is poiſoned ſometimes, and nuts are a remedy againſt a poiſon. And note, they ſhould be of a clear ſtony water, and not of a cold ſtanding muddy water, and ſhould be ſo in wine and parſley, and ſo it hurteth leaſt.

Why is it unwholeſome to ſtay long for one diſh after another, and to eat of divers kinds of meat?

Becauſe the firſt begins to digeſt when the laſt is eaten, and ſo the digeſtion is not equally made, and therefore the meat digeſted beginneth to corrupt. But yet this rule is to be noted touching the order of meat, that if there be any diſhes whereof ſome are light of digeſtion, as chickens, kid, veal, ſoft eggs, and ſuch like, theſe meats ſhould be firſt eaten; but groſs meats, as veniſon, bacon, beef, roaſted pork, hard eggs, and fried eggs, ſhould be eaten laſt. And the reaſon is, becauſe that if they ſhould be firſt ſerved and eaten, and were digeſted, they ſhould hinder the digeſtion of the others; and the light meats not digeſted ſhould be corrupted in the ſtomach, and kept in the ſtomach violently, whereof would follow belching, loathing, headach, belly ach, and great thirſt. And by conſequence it is very hurtful too at the ſame meal to drink milk and wine, becauſe they diſpoſe a man to a leproſy.

Which is beſt for the ſtomach, meat or drink?

Drink is ſooner digeſted than meat, becauſe meat is of greater ſubſtance, and more material than drink, and therefore meat is harder to digeſt.

Why is it good to drink after dinner?

Becauſe

Becauſe the drink ſhould make the meat readier to digeſt. For if a pot be filled with fiſh or fleſh without liquor, then both the pot and the meat is marred. The ſtomach is like unto a pot which doth boil meat, and therefore phyſicians do counſel to drink at meals.

Why is it good to forbear a late ſupper?

Becauſe there is no moving or ſtirring after ſupper, and ſo the meat is not ſent down to the bottom of the ſtomach, but remaineth undigeſted, and ſo breeds hurt; and therefore a light and ſhort ſupper is beſt, as the old verſe doth ſhew.

How comes ſome men to evacuate clear meat?

By reaſon of the weakneſs of nature and expulſion; which diſeaſe is called leinteria.

Of the BLOOD.

WHY is it neceſſary that every living thing that has blood have alſo a liver?

According to Ariſtotle, becauſe the blood is firſt made in the liver its ſeat, and is drawn from the ſtomach by certain principal veins, and ſo engendered.

For what reaſon is the blood red?

Firſt, It is like the part in which it was made, i. e. the liver, which is red, then it is likewiſe ſweet, becauſe it is well digeſted and connected; but if it have a little earthy matter mixt with it, that makes it ſomewhat ſalt, as appears in Ariſt. lib. meteor.

How comes womens blood to be thicker than mens?

Their coldneſs thickens, binds, congeals, and joins it together.

How comes the blood to all parts of the body through the liver, and by what means?

Through the principal veins, as the veins of the head, liver, &c. to nouriſh all the body.

Of the URINE.

HOW doth the urine come into the bladder, ſeeing the bladder is ſhut?

Some ſay by ſweating, and it ſeems to be true. Others ſay it comes by a ſmall ſkin in the bladder, which opens and lets in the urine. Pheephylack ſays, urine is a certain and not

not deceitful meſſenger of the health or infirmity of man. Hippocrates ſays, that men make white urine in the morning, and before dinner red, but after dinner pale, and likewiſe after ſupper; for there is divers colours.

How doth the leproſy proceed from the liver?

Becauſe it doth greatly engender the brains, and breed the falling ſickneſs and apoplexy.

Why is it hurtful to drink much cold water?

Becauſe one contrary doth hinder and expel another; for water is very cold, and lying ſo in the ſtomach hinders digeſtion.

Why is it unwholeſome to drink new wine, and why doth it very much hurt the ſtomach?

One reaſon is, it cannot be digeſted, therefore it cauſes the belly to ſwell, and in ſome ſort the bloody flux; ſecondly, it hinders making water; but to drink good wine is wholeſome.

Why do phyſicians forbid us to labour preſently after dinner?

For three reaſons; firſt, becauſe motion hinders the virtue and power of digeſtion; ſecondly, becauſe ſtirring immediately after dinner cauſes the parts of the body to draw the meat raw to them, which often breeds ſickneſs; and thirdly, becauſe motion makes the food deſcend before it is digeſted: but after ſupper it is good to ſtir, by reaſon we ſoon after incline to ſleep, therefore ſhould walk a little, that the food may go to the bottom of the ſtomach.

Why is it good to walk before dinner?

It makes a man well diſpoſed, fortifies and ſtrengthens the natural heat, cauſing the ſuperfluity in the ſtomach to deſcend; wherefore Avicen ſays, ſuch as neglect this exerciſe fall into inflammation of the heart.

Why is it wholeſome to vomit, as ſome ſay?

Becauſe it purges the ſtomach of all naughty humours, expelling them, which would breed agues if they ſhould remain in it. Avicen ſays, a vomit purges the eyes and head, clearing the brain.

How comes ſleep to ſtrengthen the ſtomach and the digeſtive faculty?

Becauſe in ſleep the heat draws inwards, and helps digeſtion; but when we awake, the heat remains, and is diſperſed throughout the body.

Of

Of the GALL and SPLEEN.

HOW came living creatures to have a gall?

Becauſe choleric humours are received into it, which through their acidity help the guts to expel ſuperfluities, alſo it helps digeſtion.

How comes the jaundice to proceed from the gall?

The humour of the gall is bluiſh and yellow, therefore when its pores are ſtopt, the humours cannot go into the ſack thereof, but is mingled with the blood, wandering throughout all the body, and infecting the ſkin.

Why hath not a horſe, mule, aſs, or cow, a gall?

Though thoſe creatures have no gall in one place, as in purſe or veſſel, yet they have one diſperſed in ſmall veins.

How comes the ſpleen to be black?

It is occaſioned by a terreſtrial and earthy matter of a black colour, as Ariſtotle ſays. Another reaſon is, according to phyſicians, the ſpleen is the receptacle of melancholy, and that is black.

Why is he lean who hath a large ſpleen?

Becauſe the ſpleen draws much water to itſelf, which would turn to fat; therefore contrariwiſe men that have but a ſmall ſpleen are fat.

Why does the ſpleen cauſe men to laugh, as ſays Iſadorus, we laugh with the ſpleen, we be angry with the gall, we are wiſe with the heart, we love with the liver, we feel with the brain, and ſpeak with the lungs; that is the cauſe of laughing, anger, love, wiſdom, ſpeech; and feeling proceeds from the ſpleen, gall, liver, lungs, and brain?

The reaſon is, the ſpleen draws much melancholy to it, being its proper ſeat, the which melancholy proceeds from ſadneſs, and is there conſumed, and the cauſe failing, the effect doth ſo likewiſe. And by the ſame reaſon the gall cauſes anger; for choleric men are often angry, becauſe they have much gall. For the better underſtanding of this, note, that there are four humours in man, viz. blood, choler, phlegm, and melancholy; each has its particular receptacle. Of a hot and dry ſubſtance choler is engendered, which goes to the gall; but of a cold and dry humour melancholy is engendered, and goes to the ſpleen; of a cold and

and moiſt humour, phlegm is engendered, and goes to the lungs for its reception, or (as phyſicians ſay) to the ſpleen; but the blood, which is the moſt noble humour, is engendered in the liver, which is its proper place.

Of Carnal Copulation.

WHY do living creatures uſe carnal copulation?

Becauſe it is the moſt natural work that is in them to beget their like, for if copulation were not, all procreation had ſunk ere now.

What is this carnal copulation?

It is a mutual action of male and female, with inſtruments ordained for that purpoſe to propagate their kind; and therefore divines ſay, it is a ſin to uſe that act for any other end.

Why is this action good in thoſe who uſe it lawfully and moderately?

Becauſe ſay Avicen and Conſt. it eaſes and lightens the body, clears the mind, comforts the head and ſenſes, and expels the melancholy. Therefore, ſometimes through the emiſſion of this act dimneſs of ſight doth enſue, and giddineſs; beſides, the ſeed of man retained above its due time is converted into ſome infectious humour.

Why is immoderate carnal copulation hurtful?

Becauſe it deſtroys the ſight, drys the body, and impairs the brain; often cauſes fevers, as Avicen and experience ſhew: it ſhortens life too, as is evident in the ſparrow, which, by reaſon of its often coupling, lives but three years.

Why doth carnal copulation injure melancholy or choleric men, eſpecially thin men?

Becauſe it drys the bones much, which are naturally ſo. On the contrary, it is good for the phlegmatic and ſanguine, as Avicen ſays, becauſe they abound with that ſubſtance which by nature is neceſſarily expelled. Though Ariſtotle affirms, that ever fat creature has but little ſeed becauſe the ſubſtance turns to fat.

Why don't female brute beaſts covet carnal copulation after they be great with young?

Becauſe then the womb or matrix is ſhut, and deſire doth ceaſe.

Why

Why ſhould not the act be uſed when the body is full?

Becauſe it hinders digeſtion, and it is not good for a hungry belly, becauſe it weakens him.

Why is it not good after a birth?

Becauſe then the pores are open, and the heat diſperſes through the body; yet after bathing it cools the body very much.

Why is it not proper after vomiting or looſeneſs?

Becauſe it is dangerous to purge twice in one day: but ſo it is in this act the reins are purged, and the guts by the vomit.

Why are wild beaſts furious when they couple, as appears in aſſes which bray; and harts, who are mad almoſt, as Hippocrates ſay?

Their blood is kindled with deſire, and nature alſo labours to expel ſuperfluities in them, which diſpoſe to anger and madneſs: therefore the act done, they are tame and gentle.

Why is there ſuch delight in the act of venery?

Becauſe this act is a baſe and contemptible thing in itſelf, inſomuch that all creatures would naturally abhor it were there no pleaſure in it, and therefore nature readily uſes it, that all kinds of living things ſhould be maintained and kept.

Why do ſuch as uſe it often take leſs delight in it than thoſe who come to it ſeldom?

For three reaſons: Firſt, becauſe the paſſages of the ſeed are over-large and wide, therefore, it makes no ſtay there, which would cauſe the delight. Secondly, becauſe that through often evacuation there is little ſeed left, therefore no delight. Thirdly, becauſe ſuch, inſtead of ſeed, caſt out blood undigeſted and raw, or ſome other watery ſubſtance which is not hot, and therefore affords no delight.

Whether can this carnal copulation be done by the mouth, ſo that beaſts may conceive thereby, as ſome ſay of pigeons, that by kiſſing they do it, and conceive. Some ſay that it is true in the weaſel or ermine?

According to Ariſtotle it is falſe; for though pigeons do kiſs by the beak, yet they do not couple this way nor conceive. And becauſe the weaſel carries his young ones from place to place in his mouth, they are of that opinion; wherefore Ariſtotle ſays, whatever goes in at the mouth is conſumed

ſumed by digeſtion, and if the ſeed ſhould go in at the mouth then that would be conſumed by digeſtion. The major part is plain, the concluſion doth hold in Davii.

Of the SEED of MAN or BEASTS.

HOW, and of what cometh the ſeed of man?

There are divers opinions of philoſophers and phyſicians on this point. Some ſay it is a ſuperfluous humour of the fourth digeſtion; others ſay, that the ſeed is pure blood flowing from the brain, concocted and whitened in the eſticles; and ſome again ſay it is the ſuperfluity of the ſecond or third digeſtion; but becauſe ſweet, urine, ſpittle, phlegm, choler, and the like, Ariſtotle ſays, the ſeed is always the ſuperfluity of the laſt nutriment, that is of blood diſperſed throughout the body, and comes chiefly from the heart, liver, and brain: an argument of this is, becauſe thoſe parts are greatly weakened by caſting ſeed, and therefore it appears that carnal copulation is not good. But ſome think this to be true by over-vehement practice in this act; but moderately uſed, it is very wholeſome, as was ſaid before.

Why is a man's ſeed white, and a woman's red?

It is white in men by reaſon of his great heat and quick digeſtion, becauſe rarified in the teſticles; but a woman's is red, becauſe it is the ſuperfluity of the ſecond digeſtion, which is done in the liver. Or elſe we may ſay, it is becauſe the terms corrupt the undigeſted blood, and hath its colour.

Doth the ſeed of a man come from the parts of the body, or from the humours?

Some ſay from the parts of the body, and that we prove, becauſe we find a lame man begets a lame child: and if the father hath a ſcar, the child hath one alſo, as Ariſtotle alledges, Lib. de Animal. which could not be if the ſeed did not fall from the parts of the body. Some ſay it comes from the humours, by reaſon it is made of the laſt nutriment, and that is no part but a humour. As for lameneſs or ſcars, that proceeds from the imagination of the mother at the time of carnal copulation, as Ariſtotle ſaith, Lib. de Generat. Animal.

How comes the imagination of the mother to bring forth

a blackamoor, as Albertus Magnus reports of a queen, who, in the act of carnal copulation, imagined a black being printed, and in her ſight?

Avicen ſays, the imagination of a fall makes a man tall, and the imagination of a leproſy makes a man a leper. So in this the imagination is above the forming power, and therefore the child born followeth the imagination, and not the power of forming and ſhaping, becauſe it is weakeſt.

Doth the man's ſeed enter into the ſubſtance of the child?

The ſeed of both father and mother go into the ſubſtance of the child in the womb, as cream goeth to the ſubſtance of the cheeſe. Yet this opinion doth not ſeem to be of force, therefore, according to our author and other philoſophers, we ſay the ſeed doth not go into the ſubſtance of the child; and it is proved thus, becauſe that ſo the matter and the efficient cauſe ſhould be all one, which is againſt the philoſopher. The conſequence is good, becauſe the ſeed is the efficient cauſe of the houſe, and therefore is not the material cauſe of the child. This is proved another way: As there is the ſelf-ſame material cauſe of nouriſhment and generation, 2 de Anima. ſo we have our being and nouriſhment of the ſame matter; but the ſeed cannot be the material cauſe of nouriſhment, according to Ariſtotle, therefore not of the being: and as both ſeeds are ſhut up in the womb, ſo that of the man diſpoſeth and prepares the woman's to receive the form, perfection, or ſoul, which being done, it is converted into a humidity that is breathed out by the pores of the matrix.

How come females to have monthly courſes?

Becauſe they are cold in reſpect of men, and becauſe all their nouriſhment cannot be converted into blood, a great part whereof turns to menſes, which are monthly expelled; I mean every woman in health, and of thirteen years old, ſeldom before; nay, ſome diſtempered women have them not at all.

For what reaſon do they not come before thirteen?

Becauſe young women are hot and digeſt all their nouriſhment, therefore have them not before that age.

For what reaſon do they leave off at about fifty?

Some anſwer, that old women be barren, and therefore they ceaſe, but a better anſwer is, that then nature is weak in them, and therefore they cannot expel them by reaſon

reaſon of weakneſs; there is great ſtore of immundicities bred in them, which lies in a lump; this makes them troubled with coughs and other infirmities. Men ſhould refrain their uſe at thoſe times.

Why have not breeding women the menſes?

Becauſe that then they turn into milk, and into the nouriſhment of the child; for if a woman with child have them, it is a ſign ſhe will miſcarry.

Why are they termed menſtrua, from the word menſis, a month?

Becauſe it is a ſpace of time which meaſures the moon as ſhe ends her courſe in twenty-nine days and fourteen hours. Now the moon hath dominion over moiſt things, and by reaſon the menſes are humid, they are called menſes profluvium; for moiſt things increaſe and decreaſe as the moon does.

Why do they continue longer with ſome than others, as with ſome ſix or ſeven, but commonly with all three days?

The firſt are colder, therefore they increaſe moſt in them, and conſequently are longer in expelling; other women are more hot, and therefore they have fewer, and are ſoon expelled.

Where are the terms retained before they run?

Some ſay in the matrix or womb; but Averrois ſays, the matrix is the place for generation, and that thoſe terms further not generation at all. Therefore he aſſerts, that there are certain veins about the back-bone which retain them; a ſign of which is, thoſe women at that time have great pains in their back.

Whether are the menſes which are expelled, and thoſe which the child is engendered of, all one?

No, becauſe the one are unclean, and unfit for that purpoſe, but the other very pure and clean, therefore fitteſt for generation.

Why doth thoſe got with child when they have the terms upon them bring forth weak and leprous children?

Becauſe they are venomous; ſo the cauſe appears in the effect, as philoſophers ſay the effect carrieth the likeneſs or the cauſe; therefore ſuch a child muſt needs be ill diſpoſed of body.

Why hath not women theſe at one and the ſame time,

but ſome in the new moon, ſome in the full, and others in the wane?

By reaſon of their ſeveral complexions; and though all women (in reſpect of men) are phlegmatic, yet ſome are more ſanguine than others, ſome more choleric; and as months have their quarters, ſo have women their complexions, the firſt ſanguine, the ſecond choleric. One of a ſanguine complexion hath her terms in the firſt quarter, a choleric in the ſecond, a melancholy in the third, and ſo in the reſt.

Why have the ſanguine theirs in the firſt quarter?

Becauſe, ſaith Galen, every ſuch thing added to ſuch a thing doth make it more ſuch; therefore the firſt quarter of the moon increaſeth blood in a ſanguine complexion, and then ſhe expels it.

How do they come in the end of the month?

Becauſe moſt women then are phlegmatic, and the laſt quarter is phlegm. Or elſe it proceeds from defect, and therefore cold works then do multiply the matter, and ſo multiplied, is then expelled.

How happens pain and grief at that time?

Becauſe it is like the pain of the ſtranguary, in making water drop by drop: for the ſtranguary, by reaſon of the drink undigeſted, offends the ſubtile paſſage of the urine, as happens after bathing; ſo the menſes, undigeſted and of an earthly ſubſtance, hurt the paſſage by which they go.

Why do women eaſily conceive after their menſes?

Becauſe the womb being cleanſed, they are better prepared for conception

Why do women look pale when they are upon them?

Becauſe then the heat goes from the outward parts of the body to the inward, to help nature and expel their terms, which depravation of heat doth cauſe a paleneſs in the face. Or elſe it is becauſe that flux is cauſed of raw humours, which when they run they make the face colourleſs.

Why do they at that time abhor their meat?

Becauſe nature labours more to expel their terms than digeſt, and therefore if they ſhould eat, it would remain raw in the ſtomach.

Why are ſome women barren and cannot conceive?

According to phyſicians, for divers reaſons; firſt, becauſe

cauſe it proceeds ſometimes of the man, who may be of a cold nature, ſo his ſeed is unfit for generation; ſecondly, becauſe it is wateriſh, and ſo doth not ſtay in the womb; thirdly, by reaſon the ſeed of them both has not a like proportion, as if the man be melancholy and the woman ſanguine, or the man choleric and the woman phlegmatic; for it is evident in philoſophy, that the agent and the patient ought to have the ſame proportion, elſe the action is hindered.

Why do fat women ſeldom conceive with child?

Becauſe they have a ſlippery womb, and the ſeed will not ſtay in; or elſe becauſe the mouth of the matrix is very ſtrait, and the ſeed cannot enter in, or if it does, it is ſo very ſlowly that it grows cold in the mean time, ſo is unfit for generation, and is diſſolved into an fleſhy ſubſtance.

Why do thoſe of very hot conſtitutions ſeldom conceive with child?

Becauſe the ſeed in them is extinguiſhed or put out, as water caſt into fire; wherefore we find, that women who vehemently deſire the fleſh ſeldom conceive with child.

Why are whores never with child?

By reaſon of divers ſeeds, which corrupt and ſpoil the inſtruments of conception, for it makes them ſo ſlippery that they cannot retain ſeed. Or elſe it is becauſe one man's ſeed deſtroys another, ſo neither is good for generation. Albertus ſays, the beſt thing to help conception is to take the matrix of a hare beat to powder, and ſo put in drink.

Why have ſome women long and ſlender children, and others ſhort and thick?

Becauſe, as Galen and Averrois ſay, the child is formed according to the dimenſions of the womb: wherefore, becauſe ſome women have a long and narrow womb, their children are long and ſlender, others, on the contrary, ſhort and large, therefore their children be ſhort and thick.

For why doth a woman conceive twins?

According to Galen, Becauſe there are ſeveral cells or receptacles in the womb, wherefore they may naturally have ſo many children at once, as there falls ſeed in thoſe cells: there are three in the right ſide and three in the left;

in the right ſide boys are engendered; in the left girls: and in the midſt of theſe cells or chambers there is another, where the ancients aſſert hermaphrodites to be engendered: if a woman ſhould have more than two children at once, it ſhould be rather miraculous than natural.

Why are twins but half men, and not ſo ſtrong as other men?

By reaſon the ſeed which ſhould have been for one is divided into two, and therefore they are weakly, and in truth do not often live long.

Of HERMAPHRODITES.

HOW are hermaphrodites begotten?

There are ſeven cells in the womb, three on the right ſide, three on the left, and a ſeventh in the centre, into which the ſeed falls; an hermaphrodite is ſaid to be begotten in this manner, becauſe nature doth always tend to that which is beſt, therefore ſhe doth always intend to beget the male, and not the female, becauſe the female is only for the male's ſake: therefore the male is ſometimes begotten in all its principal parts; and yet through the evil diſpoſition of the womb and object, and inequality of the ſeeds when nature cannot perfect and end the male, ſhe brings forth the female too. And therefore the natural philoſopher ſays, an hermaphrodite is impotent in the privy parts of man, as appears by experience.

Why doth not nature diſpoſe in him two ſecret parts of man, or two of a woman; but one of a man, and one of a woman?

Becauſe nature ſhould then make one of them in vain; but that is againſt the philoſophers, who ſay that God and nature make nothing in vain.

Is an hermaphrodite accounted a man or woman?

It is to be conſidered in which member he is fitteſt for the act of copulation; if he be fitteſt in the woman's then it is a woman; if in the man's, he is a man.

Should he be baptized in the name of a man or a woman?

In the name of a man, becauſe names are given ad placitum, and therefore he ſhould be baptized according to the worthieſt

worthieſt name, becauſe every agent is worthier than its patient.

Shall he ſtand in judgment in the name of a man or woman?

According to the law he ſhould firſt ſwear, before he be admitted to judgment, which ſecret part he can uſe, and ſo is to be admitted according to the uſe and power of that part.

Of Monsters.

DOTH nature make any monſters?

She doth, for if ſhe did not, ſhe would then be deprived of her end. For of things poſſible ſhe doth always propoſe to bring forth that which is moſt perfect and beſt; but in the end, through the evil diſpoſition of the matter, and influence of ſome ſpecial conſtellation, not being able to bring forth that which ſhe intended, ſhe brings forth that which ſhe can. As it happened in Albertus's time, when in a certain village a cow brought forth a cow half a man, then the countryman ſuſpecting a ſhepherd, would have burnt him with the cow; but Albertus, being ſkilful in aſtronomy, ſaid, that this did proceed from a ſpecial conſtellation, and ſo delivered the ſhepherd from their hands.

Be they one or two?

Ariſtotle ſaith you muſt look into the heart, and if there be two hearts there be two men.

Why is a man born ſometimes with a great head and ſix fingers on one hand, or with four?

Ariſtotle ſaith it proceeds of ſuperfluity and abundance of matter. when there is too much matter, then he is born with a great head, or ſix fingers; but if there be want of matter, then there is ſome part too little, or leſs than it ought to be.

Of Infants.

WHY are ſome children altogether like the father, ſome like the mother, ſome to both, and ſome to neither?

If the ſeed of the father do wholly overcome that of the mother, the child doth wholly reſemble the father; but if the

the mother's predominate, then it is like the mother; but if he be like neither, that doth happen for many cauſes; ſometimes through the four qualities, ſometimes through the influence of ſome heavenly conſtellation. Albertus gives an example, and ſaith, that there was on a time a good conſtellation for begetting of hogs, and a child was then begotten and brought forth, which had a face like a hog; and according to this, divers ſorts of monſters are brought forth.

Why are children oftener like the father than the mother?

That proceeds of imagination of the mother in the act of copulation, and therefore, by reaſon of the ſtrong imagination in the time of conception, the children get the diſpoſition of the father; as appeared before of the queen which had her imagination on a blackamoor, and of an Ethiopian queen, which brought forth a white child, becauſe her imagination was upon a white colour; as is ſeen in Jacob's ſkill in caſting rods of divers colours into the water when his ſheep went to ram.

Why doth children ſometimes reſemble more the grandfathers and great grandfathers than their parents?

Becauſe the virtue and force of the grandfather is graſed in the heart of the begetter, and it may be ſaid that ſometimes it doth proceed of the ſimilitude of the nutriture, and then the child is formed by the ſimilitude of the grandfather.

Why doth children, according to the common courſe and uſe of nature, come out of the mother's womb in the ninth month?

Becauſe the child is then fully perfect, or elſe becauſe ſome benign place doth reign, as Jupiter, who is a friend of nature; for according to aſtronomers, he is hot and moiſt, and therefore doth temper the malice and naughtineſs of Saturn, which is cold and dry; and therefore for the moſt part children born in the ninth month are healthful.

Why do children born in the eighth month for the moſt part die quickly; and why are they called the children of the moon?

Becauſe the moon is a cold planet, which has dominion over the child, and therefore doth bind it with its coldneſs, which is the cauſe of its death.

Why doth a child cry as ſoon as it is born?

Becauſe

Becauſe of the ſudden change from heat to cold, which cold doth hurt its tenderneſs. Another reaſon is, becauſe the child's ſoft and tender body is wringed and put toge her, coming out of the narrow and ſtrait paſſage of the matrix, and eſpecially the brain being moiſt, and the head preſſed and wrinkled together, is the cauſe that ſome humours do diſtil by the eyes which are the cauſe of tears and weeping. The divines ſay, it is for the tranſgreſſion of our firſt fathers and original ſin.

Why doth a child put his finger into his mouth when he cometh firſt into the world?

Becauſe that coming out of the womb he cometh out of a hot bath, and entering into the cold puts his fingers into his mouth for want of heat.

How doth a child come into the world out of the womb?

He cometh forth with the head forward; for if he ſhould come with the thighs or arms he would kill himſelf and the mother.

Of the YOUNG ONE in the WOMB.

HOW is the young one engendered in the womb?

The firſt ſix days the ſeed hath the colour of milk, but in the ſix days following a red colour, which is near unto the diſpoſition of fleſh, and then is changed into a thick ſubſtance of blood; but in twelve days following this ſubſtance is made ſo thick and ſound that it is able to receive ſhape and form, becauſe a fluid or running ſubſtance ſteepeth on till its birth. And now it is governed every month by the planets, Boetius tells us elſewhere.

Doth the child in the womb void excrement or make water?

No, and the reaſon is, becauſe he hath the firſt digeſtion which is in the ſtomach; he receives no food by the mouth, but it comes to him at the navel; he therefore makes no urine, but ſweats, which at beſt is but little, and is received in a ſkin in the matrix, and at his birth is caſt out.

Why doth the child come out of the matrix eaſily after ſeven, eight, or nine months?

Becauſe, ſaith Galen, when the fruit is ripe, then the ligaments are broken, and ſo it falls out.

Of

Of ABORTION and untimely BIRTH.

WHY do women that eat unwholeſome meats eaſily miſcarry?

Becauſe it breeds putrified ſeed in them, which the mind abhorring doth caſt it out of the womb, as unfit for the moſt noble ſhape which is adapted to receive the ſoul.

Why doth wreſtling or leaping cauſe the caſting of the child, as ſome ſubtile women uſed to do on purpoſe?

The vapour is burning, and doth eaſily hurt the tender ſubſtance of the child, entering in at the pores of the matrix. Albertus ſays, if the child be near delivery, lightening and thunder will kill it.

Why doth thunder and lightening rather cauſe young women than old to miſcarry?

Becauſe the bodies of young women are fuller of pores, and more ſlender, and therefore the lightening ſooner enters into their body; but old ones have a thick ſkin, well compacted, therefore the vapours cannot enter.

Why do much joy cauſe a woman to miſcarry?

Becauſe in the time of joy a woman is deſtitute of heat, and ſo the miſcarriage doth follow.

Why do women eaſily miſcarry when they are firſt with child, viz. the firſt, ſecond, or third month?

As apples and pears eaſily fall at firſt, becauſe the knots and ligaments are weak, ſo it is of a child in the womb.

Why is it hard to miſcarry when they are come to the midſt of their times, as three, four, five, or ſix months?

Becauſe then the ligaments are ſtronger and well fortified.

Of divers MATTERS.

WHY have ſome women greater grief than others in child-birth?

For three reaſons; firſt, for the largeneſs of the child; ſecondly, the midwife being unſkilful; and, thirdly, becauſe the child is dead, and cannot be bowed. For the contrary cauſes ſome have leſs pain.

Why has not a man a tail like a beaſt?

Becauſe a man is a noble creature, whoſe property is to ſit; ſo a beaſt cannot that hath a tail.

Why

Why do ſuch as keep hot houſes expel the heat of the furnace better with cold water than hot?

By reaſon they are contrary qualities, which work ſtrongly one againſt the other, therefore the heat is eaſier expelled from the ſtone.

Why does hot water freeze ſooner than cold?

Becauſe hot water is thinner, and gives better entrance to the froſt.

Why is every living thing dull after copulation?

By reaſon the act is filthy and unclean: and to every living creature abhors it; when men do think upon it they are aſhamed and ſad.

Why cannot drunken men judge of taſtes as well as ſober ones?

Becauſe the tongue being full of pores and ſpungy, it receives great moiſture in it, and more in drunken men than in ſober; therefore the tongue (though often drinking), is full of bad humours; and becauſe it is ſo, the faculty of taſte is rendered out of order; therefore through the thickening of the mean, i. e. taſte itſelf, drink taken by drunkards is not preſently felt, for to a due feeling it is requiſite to have a due proportion of the mean. And by this is alſo underſtood why drunkards have not a perfect ſpeech then.

Why have melancholy beaſts long ears; and why are not thoſe men wiſe for the moſt part that have long ears, but thoſe otherwiſe with ſhort ones?

The ears proceed from a cold and dry ſubſtance called a griſtle, which is apt to become a bone; and becauſe melancholy beaſts do abound with this kind of ſubſtance, they have long ears.

How comes the other to be half-witted;

Becauſe the minds and ſouls follow the bodies, for if the ſenſes of the body be ſubtile, the ſoul exerciſes ſubtile operation, as well active as ſpeculative, and the contrary is in a groſs body.

How is the intellectual ſoul joined to a child in the womb of the mother; and how does the man who begets it make the matter apt and fit to receive the ſoul?

Divines ſay, that into a ſubſtance ſufficiently diſpoſed and made fit God doth infuſe the intellectual ſoul, and St Auguſtine ſays the like. The ſoul in creating is infuſed, and infuſing is created.

Why

Why do hares ſleep with their eyes open?

Becauſe they have their eyes ſtanding out, and their eye lids ſhort, therefore never quite ſhut. Another reaſon is, they are timorous, and, as a ſafeguard to themſelves, ſleep with their eyes open.

Why don't crows feed their young till they be nine days old?

Becauſe ſeeing them of another colour they think they are of another kind; meanwhile God feeds them with heavenly dew, as the Pſalmiſt ſaith. He who doth give beaſts their food, and young crows, which call upon him.

Why are ſheep and pigeons mild creatures?

Becauſe they want galls, which ſtir anger.

Why have birds their ſtones inwards?

Becauſe if they were outward they would hinder their flying and lightneſs.

How comes it that birds don't piſs?

Becauſe that ſuperfluity which would be converted into urine is turned into feathers, for there is much moiſture in the feathers. Another reaſon is, they are in continual motion, therefore moiſture in them is dried up by air or wind.

How comes long eggs to be a ſign and cauſe of the male, and flat ſhort eggs of the female?

Hippocrates ſays, it is the property of heat to aſcend from the centre to the circumference of cold. Therefore if there be any long eggs, it is a ſign they have a great heart, and therefore paſs into the ſubſtance of the male, for in every kind the male is hotter than the female, as philoſophers ſay. If the eggs be ſhort and flat, it is a ſign the heat is ſmall and undiſperſed, and goeth into the ſubſtance of the female.

How do we hear better by night than by day?

Becauſe (as Ariſtotle ſaith) there is a greater quietneſs in the night than in the day, for the ſun doth not exhale the vapours by night, but it doth in the day, therefore the mean is more fit than ready, and the mean being fit, the motion is better done by it, which is ſaid to be done by a ſound. Another reaſon is, there are motions of the air and ſounds in the day more than in the night which hinders one another: in the night there is ſilence, which is oppoſite to ſound, and oppoſites put one againſt the other ſhow the better.

For

For what reaſon doth a man laugh ſooner when touched in the arm-pits than in the other parts of the body?

Becauſe there is in that place a meeting of many ſinews, and the mean we touch (which is the fleſh) is more ſubtile there than in other parts, and therefore a better feeling. And this is true if that place be not touched too rougely, if you do ſo, then there is not that delight: when a man is moderately and generally touched there, the ſpirits that are there diſperſed run into the face, and thence it cauſes laughter.

How comes wood burnt to be converted into black coal, and a bone burnt into a white ſubſtance?

Becauſe the wood before it was burnt was moiſt, and ſo after burning getteth heat accidentally; and that heat is not able to conſume all the moiſture of the wood, and therefore there remaineth ſome after the burning, which is converted into black ſubſtance, becauſe the humidity of the wood was ſlimy, and could not altogether be conſumed by the fire. But a bone of its own nature is cold and dry, having but ſmall moiſture in it, which the burning doth wholly conſume, and ſo accidentally, the moiſture being conſumed, the body waxeth white.

Why do ſome women love white men and ſome black?

There are two anſwers: ſome women have a weak ſight, and ſuch delight in black, becauſe white doth hurt the ſight more than black. The ſecond reaſon, is, becauſe like delight in the like; but ſome women are of a hot nature, and ſuch are delighted with black, becauſe blackneſs doth follow heat. And others are of a cold nature, and theſe are delighted with white, becauſe cold is the mother of whiteneſs.

Why do men willingly ſleep after labour?

Becauſe that through continual moving the heat is diſperſed to the external part of the body, which after labour is paſt, is gathered together to the internal parts of digeſtion, there to digeſt; and from digeſtion vapours do riſe from the heart to the brain, which do ſtop the paſſages, by which the natural heat ſhould be diſperſed to the external part; and then the external parts being cold and thick by reaſon of the coldneſs of the brain, ſleep is eaſily procured. And by this it appeareth, that ſuch as eat and drink too much do ſleep much and long, becauſe there are great ſtore of hu-

mours and vapours bred in ſuch perſons, which cannot be digeſted and conſumed of the natural heat.

Why are ſuch as ſleep much evil diſpoſed and ill coloured.

Becauſe, that in ſleep much moiſture is gathered together, which cannot be conſumed, which is expelled in taking, and ſo it doth covet to go out through the ſuperficial part of the body, and eſpecially it reſorts to the face, and therefore is the cauſe of a bad colour, as it appeareth in ſuch as be phlegmatic, and who deſire more ſleep than others.

Why doth it appear unto ſome in their ſleep that they eat and drink ſweet things?

Becauſe the phlegm drawn up by the jaws doth diſtil and drop to the throat, and this phlegm is after a ſore ſweat, and therefore that ſeemeth ſo to them.

Why do ſome dream in their ſleep that they are in the water and drowned, and ſome that they be in water and not drowned; and this doth happen eſpecially in ſuch as are phlegmatic.

The reaſon is (as Ariſtotle ſaith) becauſe the phlegmatic ſubſtance doth burn to the high parts of the body, and then they think they are in the water and drowned; and when that ſubſtance draweth unto the internal parts, then they think they eſcape. Another reaſon may be, overmuch repletion and drunkenneſs: and therefore, when a man is overmuch filled with meat, the fumes and vapours aſcend and gather together, and therefore they think that they are drowned and ſtrangled; but if they cannot aſcend ſo high, then they ſeem to eſcape.

May a man procure a dream by an external cauſe?

Ariſtotle holdeth that it may be done, if a man do ſpeak ſoftly at a man's ear, and awake him, then of this ſtirring of the ſpirits there are thunderings and buzzings in the head, and ſo dream of that. And ſo ſome men have dreams by divine reveiation, when it pleaſeth God to ſend any.

How many humours are there in a man's body?

Four, whereof every one hath its proper place in man's body. The firſt is choler, which phyſicians call flava bilis, as is placed in the liver. The ſecond is melancholy, called atra bilis, whoſe ſeat is in the ſpleen. The third is phlegm, whoſe place is in the head. The fourth is blood, whoſe place is in the heart.

What

What condition and quality hath a man of a ſanguine complexion?

He is fair and beautiful, he hath his hair for the moſt part ſmooth: he is bold, he retaineth that which he hath conceived; he is ſhame-faced, given to muſic, a lover of ſciences, liberal, courteous, and deſires no revenge.

What properties do follow a phlegmatic complexion?

They are dull of wit, their hair never curls, they are ſeldom very thirſty, they are much given to ſleep, they dream of things belonging to the water, they are fearful, covetous, given to heap up riches, are weak in the act of venery.

What properties do follow the choleric man?

He is furious and angry, quarrelſome, given to war, pale coloured and unquiet; drinks much, ſleeps little, and deſires much the company of women.

What properties do follow the melancholyman?

He is unquiet, brown in complexion, his veins hidden, he eateth little, and digeſteth leſs; when he dreameth, it is of dark coloured things; he is ſad, fearful, exceeding covetous and incontinent, unleſs he bridle his affection.

What dreams do follow theſe complexions?

Pleaſant merry dreams do follow the ſanguine complexion, fearful dreams the melancholy, the choleric dream of children, fighting and fire, and the phlegmatic dream of water. And this is the reaſon why a man's complexion is ſaid to be known by his dreams.

What is the reaſon that if you cover an egg over with ſalt, and let it lie in it a few days, all the meat within is conſumed?

The great dryneſs of the ſalt doth conſume the ſubſtance of the egg: but in ſand ſome ſay they may be kept as long as the mariners do pleaſe.

Why is the melancholy complexion the worſt of all?

Becauſe it is the dregs of blood, which is an enemy to mirth, and farthest from the beginning of man's life, and bringeth old age and death, becauſe it is cold and dry.

Why is the phlegmatic for the moſt part dull of wit?

Becauſe that the vivacity of wit proceedeth of heat, ſo of cold the contrary, which they are ſubject unto.

Wherefore doth it proceed that ſome men die with extreme joy, and ſome with extreme grief?

Over great joy doth overmuch heat the internal parts of the body, and overmuch grief doth drown and ſuffocate the heat, the which failing a man dieth.

Why hath a man ſo much hair on his head?

The hair of the head proceedeth of the vapours which ariſeth from the ſtomach, and aſcend to the head, and alſo of the ſuperfluities which are in the brain; and thoſe two paſſing through the pores of the head are converted into hair, by reaſon of the heat and dryneſs of the head. And becauſe man's body is full of humours, and hath more brains than other creatures, and alſo more ſuperfluities in the brains, which the brain expelleth, it followeth that he hath more hair than other living creatures.

How many ways is the brain purged, and other hidden places of the body?

Four; the watery and groſs humours are purged by the eyes, melancholy by the ears, choler by the nole, and phlegm by the hair.

What is the reaſon that ſuch as are very fat in their youth are in danger to die on a ſudden?

Such have very ſmall and cloſe veins, by reaſon of their fatneſs, for that the air and the breath can hardly have free courſe in them; and thereupon the natural heat wanting ſome refreſhment of the air is put out, and as it were quenched.

Why doth garlic and onions grow after they are gathered?

It produceth of the great humidity which is in them.

Why do men feel cold ſooner than women?

Becauſe that men being more hot than women, have their pores more open, and therefore the cold doth ſooner enter into them than women.

Why are not old men ſo much ſubject to the plague as young men and children?

They are cold, and therefore the pores are ſhut up, and not ſo open as in youth; and therefore the infecting air doth not penetrate ſo ſoon as when they are open, as in youth, by reaſon of heat.

Why do we caſt water in a man's face when he ſwoondeth?

Becauſe that through the coldneſs of water the heat may run to the heart, and ſo give ſtrength

Why are thoſe waters beſt and more delicate which run towards the ſun riſing?

Becauſe

Becauſe they are ſooneſt ſtricken with the ſun beams, and made pure and ſubtile, becauſe the ſun hath them long under him, and by that means takes off the coldneſs and groſs vapours which they gather from the ground they run through.

Why have women ſuch weak ſmall voices?

Becauſe their inſtruments and organs of ſpeaking, by reaſon they are cold, are ſmall and narrow; and therefore receiving but little air, cauſeth the voice to be ſmall and effeminate.

Whereof doth it proceed that want of ſleep doth weaken the brain and the body?

Much watching doth engender choler, the which being hot, doth dry up and leſſen the humours which conſerve the brain, the head and other parts of the body.

Whereof doth it proceed that vinegar doth ſtench blood?

It proceedeth of its cold virtue, for all cold naturally is binding, and vinegar being cold, hath the like property.

Why is the ſea water ſalter in ſummer than in winter?

It proceedeth from the heat of the ſun, ſeeing by experience that a ſalt thing being heated becometh more ſalt.

Why do men live longer in hot regions than in cold?

Becauſe they may be more dry, and by that means the natural heat is better conſerved in them than in cold countries, becauſe the cold doth extinguiſh the heat.

Why is well water ſeldom or ever good?

All water which ſtandeth ſtill in the ſpring, and is never heated by the ſun beams is very heavy, and hath much earthy matter in it; and therefore wanting the heat of the ſun is naught.

Why do men ſleep better and more at eaſe on the right ſide than on the left?

Becauſe when we lie on the left, the lungs do lie upon and cover the heart, which is on that ſide under the pap. Now the heart, the fountain of life, being thus occupied and hindered with the lungs, cannot exerciſe its own proper operation, as being overmuch heated with the lungs lying on it, and therefore wanting the refreſhment of the air which the lungs do give it, like the blowing a pair of bellows, choaked and ſuffocated; but by lying on the right ſide theſe inconveniencies are avoided.

Whereof doth it proceed that the holding of the breath doth cauſe vexing to ceaſe?

Becauſe the holding the breath doth heat the internal parts of the body. And this heat chaſeth away the vexation, being nothing elſe but a cold air within the body.

What is the reaſon that old men ſneeze with difficulty?

Becauſe that through their coldneſs their arteries are very narrow and cloſe, and therefore the heat is not of force to expel the cold; for I think ſneezing is like the combat in the air made by thunder, which is cauſed by heat and cold.

Why doth a drunken man think that all things about him doth turn round?

Becauſe the ſpirits which ſerve the ſight are mingled with vapours, fumes, and the wine: and then the overmuch heat cauſeth the eye to be in a continual moving; and the eye being round, cauſeth all things about it to ſeem to go round.

Wherefore doth it proceed, that bread which is made with ſalt is lighter than that which is made without it, conſidering ſalt is very heavy of itſelf?

Although bread is heavy of itſelf, yet the ſalt dries it, doth make it light by reaſon of the heat which it hath, which heat doth dry, and the more heat there is in it the better the bread is, the lighter and more wholeſome for the body.

Why is not new bread good for the ſtomach?

Becauſe it is full of moiſtneſs, and thick, and hot vapours, which do corrupt the blood, and hot bread is blacker than cold, becauſe heat is the mother of blackneſs, and becauſe the vapours are not gone out of it.

Why doth lettuce make a man ſleep?

Becauſe they engender groſs vapours.

Why do the dregs of wine and oil go to the bottom, and thoſe of honey ſwim uppermoſt?

Becauſe the dregs of wine and oil are earthly and not purged before, and therefore being of the nature of earth do go to the bottom; but honey is a liquor, which cometh from the ſtomach and belly of the bee, and there in ſome ſort purified and made ſubtile; and by that means that which remains is light and hot, and therefore goes upwards.

Why do cats and wolves eyes ſhine in the night and not in the day?

The eyes of theſe beaſts are by nature more cryſtalline than the eyes of other beaſts, and therefore do ſhine as they do;

do; but the brightneſs of the ſun doth hinder them to be ſeen in the day time.

What is the reaſon that ſome men when they ſee others dance do the like with their hands and feet, or by ſome other geſture of the body?

The anſwer is, becauſe the ſight having carried and repreſented unto the mind that action, and judging the ſame to be pleaſant and delightful, and therefore (deſiring it) the imagination draweth the likeneſs of it in conceit, and ſtirs up the body by the geſtures.

Why do much ſleep cauſe ſome to grow fat and ſome lean?

Thoſe which are of ill complexion, when they ſleep, do conſume and digeſt the ſuperfluities of that they have eaten, and therefore become fat. But ſuch as are of good complexion, when they ſleep are much more cold, and ſo digeſt leſs.

How and for what cauſe do we ſuffer hunger better than thirſt?

When the ſtomach hath nothing to conſume, it conſumeth the phlegm and humours which it findeth moſt ready and moſt at hand; and therefore we ſuffer hunger better than thirſt, becauſe the heat hath nothing to refreſh it withal.

Why doth the hair fall after a great ſickneſs?

Where the ſickneſs is long, as an ague, the humours of the head are dried up through overmuch heat, and therefore wanting nouriſhment they fall.

Why doth the hair of the eye-brows grow long in old men?

Becauſe that through their age the bones of the eyelids are thin, by reaſon of the want of heat, and therefore the hair doth grow there, by reaſon of the rheums of the eyes. The like doth happen in ſuch as imagine much, becauſe that with their heat they draw up many humours to the fore part of the head, where the imagination is placed.

Whereof proceedeth gaping?

Of groſs vapours which occupy the vital ſpirits of the head, and the temples are cold, making them ready to ſleep.

What is the reaſon that ſome flowers do open with the ſun riſing and ſome with the ſun ſetting?

Cold doth cloſe and ſhut as hath been ſaid, but the heat of the ſun doth open and enlarge; ſome do compare the ſun to the ſoul of the body; for as the ſoul giveth l[illegible] and when

when it departeth, death followeth; ſo the ſun doth give life, and vivicate all things; the cold bringeth death, withering and decaying of all things.

Why do grief cauſe men to grow old and grey?

Age is nothing elſe but a dryneſs and want of humours in the body: grief then cauſeth alteration, and alteration heat, and heat dryneſs; age followeth immediately, and greyneſs.

Why are gelded beaſts weaker than ſuch as are not gelded?

Becauſe they have leſſer heat, and by that means leſſer force and ſtrength.

MARCUS ANTONIUS ZIMARAS SANCTIPERTIUS'S PROBLEMS.

WHY is it eſteemed in the judgment of the moſt wiſe the hardeſt thing to know a man's ſelf?

It is becauſe nothing can be known; its form and perfection cannot be found; to know the form and perfection of a man's ſelf, as it cometh unto the philoſopher, is a matter hard enough, and a man, by the authority of Plato, either is nothing, or if he be any thing, he is nothing but his ſoul. Or, is it becauſe it cannot be done by a reflected action, and to reflect and look unto himſelf is a token that he is ſeparated by the fleſh: for he who would know himſelf ſhould be drawn from ſenſible affections; and how hard this is no man is ignorant of? Or, is it becauſe a man liveth by underſtanding? But the underſtanding of a man cannot conceive himſelf, but after the underſtanding of ſenſes which is very hard.

Why was Socrates eſteemed the wiſeſt of all Greece by Apollo, ſeeing that by the opinion of Ariſtotle he was conversant and buſied only about morality, and nothing about nature?

Whether it is becauſe it is more expedient for the commodity and uſe of men to live well than to contemplate: or becauſe it ſeemeth to Plato that he has uſually profeſſed of himſelf every where, I know one thing, that I know nothing.

Why do men eſpecially contend and ſtrive in things of war?

It is becauſe they think that other things which are called goods are the power of another, as the gifts of the body are nature's, and external and worldly goods are ſubject unto

to the rule of fortune; whereof it cometh to paſs, that every man can eaſily ſuffer himſelf to be overcome in ſuch things, as things not happening through his fault or occaſion, but they think wit to be in their own power. Or, is it becauſe they think that the goods of the mind do excel all other goods, and therefore do think it a thing moſt natural to contend for that which is moſt excellent? Or, is it becauſe it is a common diſeaſe of all men, as it ſeemeth unto a certain wiſe man, that every man doth think himſelf more learned than he is, and therefore doth deſire to perform that which he believeth without ſtudy and labour.

Why do men ſay that philoſophy is naked?

It is becauſe truth is naked, and that there needs no colour of words when we hand a matter of truth; for it belongeth to ſophiſters to diſpute of terms when the ſincere truth is ſought. Or, is it becauſe they do not play the philoſopher well, which ſeek philoſophy for gain and ambition, and not for herſelf? Or, is it becauſe he ſhould be void from all worldly affections who deſireth to endeavour himſelf in the ſtudy of philoſophy; for Ariſtotle doth ſay the ſoul is made wiſe by reſt and quietneſs. And it were eaſy for philoſophers to become rich if they would, as it appeareth by the example of Thales.

Why do men deſire to be had in memory after their death, and therefore ſome make pyramids, ſtatues, images, and divers other tokens and monuments which they build and leave behind them?

It is becauſe all things, as ſeem unto Ariſtotle, do deſire to anticipate of ſome perpetuity and divine being as much as they can; and therefore, if they cannot remain in nature and being, yet they endeavour at leaſt to continue in the opinion and conceit of men? Or elſe hath cuſtom brought it in ſo, to ſtir up ſuch as come after, to the end they ſhould not degenerate from their parents.

Why is the cauſe that mens deſires grow without meaſure about fortune's goods?

It is becauſe natural deſires, as Seneca ſaith, have an end, and ſuch deſires which proceed of falſe opinion have no where to end.

Why do poets always aſſign and appoint ſome wiſe men to be familiar with princes: as Homer doth Neſtor with Agamemnon: Euripides, Tireſias with Creon: Heſiodus, Prometheus

Prometheus with Jupiter: and Maro, Achates with Æneas?

It is becauſe, that by the law of nature, as Plato doth ſay, wiſdom and power doth direct our actions to one end, and to effect the ſame thing, love it, and ſeek it.

Why doth Homer, when he makes mention of ambaſſadors, talk always of the embaſſy of a commander in bare words?

It is becauſe it is the duty of ambaſſadors to declare the bare will of the commander, and put his ſentence in execution; and therefore it is certain he ſhould add nothing; or elſe, it is becauſe the commandment of him who doth rule, that is, of a wiſe man, is put into good order, and is preſumed to be moſt perfect? And therefore there ſhould be nothing changed, but his degrees and conſtitutions are to be judged abſolute and perfect.

Why doth Ariſtotle uſe exceeding brevity in moſt hard matters?

Whether becauſe it is the cuſtom of wiſe men to load their words with ſentences, or elſe to the end that he would be obſcure, to fear and keep off rude wits from reading of his works as it ſeemeth in the expoſitors, or whether it is becauſe that in a hard matter, and in a matter of truth many words are ſuſpected, becauſe that truth doth conſiſt in few words; or is it becauſe it ſeemeth to the wiſe men in many words there is error often committed.

Why do famous men, in any ſcience, when they do err in any matters, err more dangerouſly than thoſe which are leſs famous?

It is becauſe that ſuch, truſting to the heat of their own wit, are drawn far from their own ſenſes, and therefore muſt needs be deceived. Avicen may ſerve for a proof of this, who, for all his fame in philoſophy, ſaid, that a man might naturally be brought forth of the earth. And that great famous Averrois, who thought that a maid might conceive with child in a bath, without knowledge of man.

Out of ARISTOTLE.

Why is a man, being endued with reaſon, the moſt unjuſt of all living creatures?

It is becauſe man only is deſirous of honour, ſo it comes to paſs that every one covets to ſeem good, and yet naturally ſhun

ſion labour, though he attains no virtue by it; or elſe it is becauſe the nature of a ſophiſter is rather to ſeem than to be and not ſeem; but very few do attain to true virtue.

Why do ſome in their youth beget girls, and in their middle age when old beget boys?

It is becauſe the ſeed waxeth cold in ſuch as uſe carnal copulation too often, and therefore in their middle age, when they grow tired, their ſeed is hotter, and ſo produceth males.

Why have children or boys pleaſure in the act of venery, ſeeing they do not caſt forth ſeed?

It is, as the philoſopher ſaith, becauſe there is certain ticklings in the letting out the ſpirit of breath, as it is in ſuch as are of age by caſting forth ſeed.

Why have thoſe leaſt pleaſure who uſe the act of copulation often?

By often uſing carnal copulation the ſpirit and ſeed doth increaſe and wax cold, therefore not ſo itching or tickling, which is of delight.

Why doth immoderate copulation do more hurt than immoderate letting of blood?

It is becauſe the ſeed is fuller of ſpirit and nutriment, better diſpoſed and prepared for the nature of the body than the blood; for ſays Galen, the ſeed is the cauſe of the ſubſtantial parts of the body, and of it the body grows and is nouriſhed. And he who is hungry is hurt more by taking away of bread than flour. ſo the body is more weakened by taking away ſeed than by evacuating blood.

What is the reaſon thoſe that have a very long yard cannot beget children?

Whether is it becauſe the ſeed in going a long diſtance the ſpirit doth breathe out, and therefore is cold and unfit for generation.

Why do ſuch as are corpulent caſt forth little ſeed in the act of copulation, and are often barren?

It is becauſe the ſeed of ſuch goes to nouriſhing the body; for the ſame reaſon corpulent women have but few menſes.

How comes women prone to venery in the ſummer time, and men in winter?

It is becauſe at that time his teſticles hang down and are feebler than in winter; or elſe becauſe hot natures become lively;

lively; for a man is hot and dry, a woman cold and moiſt; and therefore in ſummer the ſtrength of men decays, and that of women increaſe, and ſhe grows livelier by the benefit of the contrary quality. And for the ſame reaſon ſome beaſts of a cold nature lie in dens and holes, and through the frigidity of the air receive little or no nouriſhment, but revive again when heat comes.

How comes man to be proudeſt of all living creatures?

Whether it is by reaſon of his great knowledge, or that (as the philoſophers ſay) all intelligent beings having underſtanding, nothing remains that eſcapes man's knowledge in particular: or, it is becauſe he hath rule over all earthly creatures, and all things ſeem to be brought to his arbitrement? Or, ſhall I anſwer, that the pride of man proceeds from his not knowing himſelf; for truly would he remember that he is but duſt and aſhes, came naked into the world, born to earn his bread by the ſweat of his brows, and after born to die, he would abhor pride.

How comes one man to underſtand one thing, and do another?

It is becauſe there is in the ſame ſcience contrary things? or becauſe the office of the mind is to reach at many things, and the appetite tends to only one? and ſo a man chiefly lives by underſtanding and reaſon, but beaſts are governed by appetite, anger, and pleaſure.

How comes moſt womens wits unapt to good things, and moſt prompt to naughty, as ſays Euripides?

Becauſe of a privation, which ſeems to be coupled and joined to her nature: for as a woman is a man's hurt, ſo the faculty of a privation is always to do miſchief.

Why do men ſay that a woman's firſt counſel ſhould be cheſen?

Becauſe (as we ſee in things that want reaſon) their actions and motions are guided to their proper ends by a ſuperior power; for I think that is very true which is ſaid, That there's a Providence which puts into a diſhoneſt heart the deſire of honeſty, and in a poor man the deſire of wealth, as far as ſufficient. So a woman's underſtanding, though ſhe knows not the reaſon of good and evil, is ſometimes directed by an infallible truth to take ſome things in hand; but ſome things they undertake of themſelves are to be let alone, as weak, and ſubject to many errors.

How

How comes it that women desire to go fine, and deck themselves rather than men.

It is because by nature they are imperfect, so they endeavour to supply their imperfections by art; or else it is because they want the beauty of the mind, to study to adorn their bodies.

How comes it that a tall man is seldom wise?

By reason the largeness of his body proceeds from excess of heat, and abundance of humidity. Some wise men think the perfection, accomplishment, and goodness of the operation is perfected by dryness, which doth always go and increase till it brings us to our end; for the constitution of the body originally sprung from the last humidity, but the vehemence and excess of heat overflows the judgment, and hinders quietude.

Why is a multitude of princes or rulers naught, as Homer saith?

It is because if the government should dwindle into tyranny it is better to be under the yoke of one than many; or because a multitude of rulers seldom regard the good of the public. Hence it proceeds, that if once they disagree, great is like to befall the commonality: it is easier for one man to be well given than many; in the government of many, there wants not strife, debate, and envy. Wherefore it is justly said, that a multitude of rulers are naught: for which reason let there be but one prince at a time.

Why have beasts their hearts in the middle of their breast, and man his inclining toward the left side?

It is because it should moderate the cold on that side; for Aristotle says, man hath only the left side cold. Or it is, as physicians say, because it should give place to the liver, which is on the right side.

Why doth a woman love that man best who had her maidenhead?

It is because that the matter doth covet a form or perfection, so doth a woman the male. Or it is by reason of shamefacedness? for, as Plato saith, shamefacedness doth follow love. Or is it because the beginning of great pleasure doth bring a great alteration in the whole, whereby the powers of the mind are much delighted, and stick and rest immoveable in the same? Hesiod advises to marry a maid.

How comes the night, in full of moon, ſomewhat warm, ſince (according to the mathematicians) the moon is cold by night?

Whether it is becauſe the opinion of the peripatetics ought to be preferred, which ſays, every light heats in that reſpect it is reflected.

How comes the night in autumn colder than in ſpring?

It is becauſe the air is very thin, and bodies that are rarified are very apt to receive heat or cold, as it is eaſily ſeen in water, for water heated doth ſooner freeze than cold, becauſe it is rarified by heat.

How are bodies ſooner hurt with cold in autumn than in ſpring?

It is becauſe the bodies which are accuſtomed to cold do in ſpring receive heat, and therefore the moving or mutation is natural, and not ſurpriſing. But in autumn they haſten from heat to cold, not being accuſtomed, and without any mean. Galen ſays, nature doth not endure ſudden things.

How comes hairy people to be more luſtful than others?

Becauſe in them is ſuppoſed great ſtore of excrements and ſeed, as philoſophers aſſert.

How comes it that men who have ſmall heads are naturally angry and teſty?

Becauſe when the head is little, (the brain is ſo of courſe) the heat of the heart cannot be moderated with the heat of the brain as it ought to be, and anger proceeds of the boiling of the blood about the heart through ſome vexation.

How comes the fundament of a man to cloſe after he hath made water?

Becauſe the air runs preſently to fill that which is empty, and ſo the parts of the body are altered by the coldneſs of the air, which cauſes trembling.

Why have ſome men died through grief, ſome through joy, but more through anger?

Becauſe joy cools the very inward guts, grief or ſorrow do ſuffocate and choak the inward parts, and cool the outward, but anger heats both while heat remains; life and nature doth ſo too, becauſe the ſoul is counted the life and natural heat.

How doth the voice change in people when they begin to have ſeed?

It is becauſe that heat is the beginning of veins and blood, as Ariſtotle ſaith againſt the phyſicians; and thereupon it raiſeth that, becauſe the change of the excrements of ſeed is made in the higheſt part of the body, the voice being above makes it manifeſt. And thereupon it is that the voices both of men and women do change when they begin to have ſeed

How comes it that when a pot full of boiling liquor is ſeething, yet the bottom is cold?

It is becauſe the hot vapours aſcend upwards, and therefore, when the uppermoſt water is hot the bottom at the ſame time is cold, by reaſon of the coldneſs of the water adjoined into it.

Why is the grain which we find in the ants holes, and gathered in ſummer time, gnawed at one end?

It is becauſe they are directed of nature to gnaw and conſume that end where the virtue of feeding is, for fear it ſprout again; leſt by the ſprouting and growing they ſhould be deprived of the nutriment belonging neceſſarily unto themſelves.

Why do children love their mother more frequently than their father?

It is becauſe they take great pains with them, or becauſe of the great certainty which they have of themſelves, as Ariſtotle ſaith.

Why is not the father as well beloved of the ſon as the ſon is of the father?

It is, as the wiſe men ſay, becauſe love does not go backward, but always foreward; becauſe love doth by nature ſerve ſuch a life to continue the kind; whence it comes to paſs, that our natural deſire neglecting things paſt, looking to things to come. Or, it is (as the philoſopher ſaith) becauſe the father hath ſomewhat of his in the ſon, the ſon nothing of his in the father.

Why are aſſes more nimble, as the proverb is, when they are young, than at any other time?

Whether it is becauſe their nature and conſtitution being melancholy from the beginning, it is requiſite there ſhould be a temperance with the recompence of contrary qualities; for melancholy by nature is cold and dry, but when they are young they are hot and moiſt? This alſo we ſee in melancholy children; they which in their childhood are of

great wit, and before it be looked for are of great wiſdom, inſomuch that you may hope and promiſe any thing in time to come, whoſe art nevertheleſs, in progreſs of time doth decay and fade. Be therefore (ſaith the Greek) naught, to the end thou mayeſt live, for the nature of ſuch is moſt ſhort.

Why be there no aſſes in Pontus and Scythia?

It is becauſe their nature is moſt impatient of cold, as philoſophers do ſay.

Why are clergymen and women moſt covetous?

It is becauſe the habit of virtue is bred of many actions, and therefore, ſeeing that prieſts want wives and children, they are no ways forced to ſpend their goods, and yet are accuſtomed to take and receive, and ſo become covetous; for as the philoſopher doth ſay, ſuch as every man's actions are, ſuch doth he become. The nature of women (as we have often ſaid) is imperfect, and therefore they think it impoſſible fully to ſatisfy themſelves; they gather together and keep that by which means they may help their need; and by induſtry and art they covet to get that which nature does not give them. And for the ſame reaſon (I ſuppoſe) old men give themſelves to covetouſneſs; for wanting, and being deſtitute of helps by age and nature, they grip after the goods of fortune, that with them they may provide for themſelves againſt all wants.

Why do wounds grieve leſs in war than out of war?

It is becauſe the powers of the ſoul bend another way; for, as the philoſopher doth ſay, if our mind be ſtrongly fixed on other matters, we do not ſee thoſe things which are before our eyes; or whether it is by reaſon of anger, which, as wiſe men ſay, doth heat the internal and external part; and, as Ariſtotle affirms, with the heat the ſoul works all things: and therefore it happens, that the angry man grows but ſlowly after his wound, and therefore alſo doth leſs grieve and heat.

Why do we wonder at an eclipſe of the ſun and moon, and not at all the generation of plants and beaſts by ſeed?

Whether it is becauſe our admiration ceaſeth in things which are uſual, and our mind neglected to ſearch out the truth in ſuch things; but that which happens ſeldom, doth ſtir us up to wonder, and induceth the underſtanding of the cauſe.

How comes it that the headach, dulneſs of memory, and an

an evil diſpoſition of imagination, doth follow the long detaining of the ſeed?

It is becauſe it doth hinder and make heavy the brain by exceſs of ſeed; or becauſe the ſeed long kept, getting ſome venomous quality, and therefore the fume and vapour of it doth hurt the head.

How comes it that prieſts and monks fear and abhor death more than any man?

It is becauſe they are by nature cold and melancholy; becauſe they perceive themſelves to periſh utterly; for when they are out of this world, they neither continue in their own nature nor in poſterity.

Why if trees fall their leaves, and beaſts their hair and feathers, they receive them again, and if a man become bald, his hair groweth no more?

It is becauſe the time of the year doth bring that change of bodies; ſo that in the firſt change there floweth an interchangeable courſe one after another, and beaſts receive their feathers and hair, and trees their leaves; but baldneſs cometh to a man through age, and nature giveth no coming again to age.

Why doth ſummer end all diſeaſes;

If force and nature be ſtrong it ſhall find air moſt fit for reſolution and digeſtion, and expulſion of ſuperfluities, if weak and overthrown, the heat doth overthrow it more. It doth looſen weak bodies, and therefore there cometh nothing unto the ſick body but death.

Why if a man put his hands into the water in ſummer, is he colder if the water be moved than when it ſtandeth ſtill?

It is becauſe that part of the water which toucheth his hands is hot by the heat of his hands: for every agent which doth communicate with the patient in the things whereon he worketh, in doing ſo doth ſuffer again; and the water being moved, it is neceſſary that the parts of it which are rarified be ſcattered abroad, and others more cold ſucceed them.

Why do ſome which have an evil complexion and conſtitution of body live longer than ſome others which are of a ſanguine and bitter nature?

Whether it is through bad government and order; or becauſe there is ſome hidden cauſe in thoſe diſpoſitions; for as

Averrois ſaith, the number of the elements is infinite in the works of nature, the which none beſides the Author of nature doth underſtand.

What is the cauſe, as phyſicians ſay, that the ſuffocation of the matrix, which happens to women through ſtrife and contention, is more dangerous than the detaining of the flowers?

Whether is it becauſe that by how much the more an excrement is perfect, ſo long as it doth continue in its natural diſpoſition, by ſo much the more it is worſe when it is removed from that, and drawn to the contrary quality; as is ſeen in vinegar, which is the ſharpeſt when it is made of the beſt wine. And ſo it happens, that the more men love one another, the more they hate when they fall to variance and diſcord.

Why doth the land which ſtandeth ſtill ſeem to move unto ſuch as ſail by ſea?

It is becauſe the nutriment of the ſenſe of ſeeing is accidentally moved when the ſhip is moved, whereby the likeneſs and ſimilitude of things are perceived and received with the moving.

Why do we love our ſight above our ſenſes?

Whether it is (as Ariſtotle doth ſay) becauſe it doth ſhew us the difference of things, or becauſe its knowledge is more drawn from material ſubſtance: Or it is becauſe the divine force of love is placed in that ſenſe, Plato ſaith.

Why do we not judge a ſtaff to be broken in the water, ſeeing it doth ſo appear in the ſenſe of ſight?

Whether is it becauſe we perceive by the ſenſe of feeling and touching that the ſight doth err? Or is it becauſe we do not judge with the ſame power as we do imagine with? An argument of this, becauſe the ſun doth ſeem to be but a foot round. And by a trick and moving of the finger, one finger doth ſeem two, yet we do not yield that they be two.

Why do we put our hands over our eyes when we would ſee any thing afar off?

It is becauſe the light ſhould not be diſperſed: and ſo Ariſtotle ſaith, that thoſe which have their eyes ſtanding out cannot ſee far: and contrary, ſuch as have them hollow in their head can ſee far, becauſe the moving of the ſight is not ſcattered.

How

How do ſome people diſcern things near them and not at a diſtance?

It is through the weakneſs of the ſight, for in ſuch the power of ſeeing is very weak; therefore they do need a ſtrong moving, as it is alſo in ſuch as have their eyes ſtanding out who cannot ſee far.

Why do ſuch as would ſhoot aright wink with one eye?

Becauſe the ſight is more ſtrengthened and united, and ſo fitter to perform this action.

Why are ſuch as have been long in the dark, if on a ſudden they come into the light, half blind?

It is becauſe nature cannot endure thoſe ſudden mutations, or becauſe the ſpirit of the ſight is ſmall and weak, and therefore is glad of the like, and ſo diſſolves when they come into the light. Or elſe it is becauſe of the deſire of that light they wanted before, which, when they behold too earneſtly, their ſight is weakened, as it happens in ſome who have a long time endured famine, and then eating greedily take more than they can digeſt, and ſo periſh.

Why can nothing be the cauſe of its own generation and corruption?

It is becauſe the mover muſt be before the thing moved, and the engenderer before the things engendered, or that it is poſſible to be before itſelf.

How comes womens bodies looſer, ſofter, and leſſer than mens? And why do they want hair?

By reaſon of their menſes, for with them their ſuperfluities go away which would produce hair, and where the fleſh is filled, conſequently their veins are more hid than mens.

What is the reaſon that when we think upon an horrible thing we are ſtricken with fear?

It is becauſe the conceit, thinking and underſtanding of things, have force and virtue? For Plato ſaith, the reaſon of things have ſome affinity with the things themſelves; for the image and repreſentation of cold and heat, in ſuch as the nature of the things are, as the philoſopher had ſaid. Or is it becauſe when we comprehend any dreadful matter, the blood runneth to the internal parts, and therefore the external parts are cold, and ſhake with fear.

Why

Why doth a reddiſh root help digeſtion, and yet itſelf remaineth undigeſted?

Whether is it becauſe the ſubſtance conſiſteth of divers parts, for there are ſome thin parts in it which are fit to digeſt meat, the which being diſſolved, there doth remain ſome thick and cloſe ſubſtance in it, which the heat cannot digeſt.

Why do ſuch as cleave wood cleave it eaſier in length than athwart it?

Whether is it becauſe in wood there is a grain, if it be cut in length, whereby in the very cutting one part draweth another faſt by?

What is the reaſon, that if a ſpear be ſtricken on the end the ſound cometh ſooner to one which ſtandeth near than to him which ſtriketh?

Whether is it becauſe (as it hath been ſaid) there is a certain long grain in wood directly forward filled with air, but croſs; or one ſide there is none: and therefore a beam or ſpear ſtriken on the end, the air which is hidden receiveth a ſound in the aforeſaid grain, which ſerveth for the paſſage of the air; and therefore, ſeeing the ſound cannot go eaſily out, it is carried unto the ear of him who is oppoſite to him, and thoſe paſſages do not go from ſide to ſide, and therefore a ſound cannot be diſtinctly heard.

Why be not there famous men in every faculty in our age?

It is becauſe the nature of man decayeth in our age; and, as Salinus ſaith, ſucceſſion being corrupted, the progeny of our age is worſe by birth; or it is becauſe ſuch are not eſteemed of princes; for take away the reward due unto virtue, and no man will embrace it; or it is ordained by nature that men do always complain of the preſent time.

Why are flatterers in great credit with princes?

It is, as Plutarch ſaith by the authority of Plato, becauſe they love themſelves too much; immoderate love of themſelves cauſeth them to admit flatterers, and to give them credit; or it is, as I think, becauſe they want the light of reaſon; for among birds, ſome through the corruption of their nature delight in ſtinking meat; and whom the day doth blind the night doth lighten.

Why have philoſophers for the moſt part in theſe days evil conditions?

Is it becauſe they are eſteemed of princes? or is it becauſe of

of the philoſophy itſelf they are accuſed of crimes, and think therefore they are compelled to forſake virtue and follow vice? or elſe deceived through error, they think they have ſnatched to themſelves ſome of her rags; and therefore they are by us rather called ſophiſters than philoſophers, for certainly a philoſopher ſhould be of a ſtout courage in all reſpects and in all fortunes, for they reaſon badly, and therefore they ſhould give themſelves unto philoſophy, becauſe they would be honoured of princes; and their deſire is not ruled by nature, but by errors, and they are thruſt forward with ſtreams of falſe credulity.

Why do ſuch as are angry wax pale in the beginning, and afterwards red?

It is through the deſire of revenge for that which grieveth, that the heat and blood are called unto the heart, and therefore of neceſſity the external parts are pale, when they are determined to put that in execution which they deſire, the heat and blood do run into the outward parts, and then they are greatly to be feared and taken heed of.

Why do ſerpents want a yard and ſtones?

It is becauſe they want thighs, and therefore do want a yard, and then want ſtones, becauſe of the length of their body.

Why can ſerpents turn their heads backwards, and the reſt of the body ſtand ſtill?

It is becauſe (like unto thoſe creatures which are called Inſecta) they are made of a winding compoſition, and have their joints flexible, and made of griſtles, and this is the reaſon in ſerpents, and alſo becauſe they may void all thoſe things which hurt them; for having no feet, and being long in body, they cannot eaſily turn them, whilſt they bow againſt thoſe things which are behind them. It were to no purpoſe to lift up their head if they could not exerciſe anger.

Why is a camelion changed into many colours?

Whether is it, as ſeemeth unto the philoſopher, becauſe he is the ſlendereſt of all footed beaſts engendered of eggs, and is ſtark cold for want of blood, the cauſe is to be referred unto the quality of the mind: through overmuch coldneſs he is of ſo many colours, or it is the property of fear to bind faſt through want of blood and heat.

Why are the thighs and calves of the legs of men fleſhy, ſeeing the legs of beaſts are not ſo?

It

It is becauſe men only go upright, and therefore nature hath given the lower part corpulency, and hath taken it away from the upper; and therefore ſhe hath made the buttock, the thighs, and calf of the legs fleſhy.

Why (as Ariſtotle doth affirm) are the ſenſible powers in the heart, yet if the hinder part of the brain be hurt the memory payeth for it; if the fore part, the imagination; if the middle, the congitative part?

It is becauſe the brain is appointed by nature to cool the heat of the heart, wherefore it is, that in divers of its parts it ſerveth the powers and inſtruments of their heat, for every action of the ſoul doth not proceed from one meaſure of heat.

The Problems of ALEXANDER APHRODISEUS.

WHY doth the ſun make a man black, and make dirt white, and make wax ſoft, and dirt hard?

By reaſon of the diſpoſition of the ſubſtance that doth ſuffer. All humours, phlegm excepted, when they are heated above meaſure, do ſeem black about the ſkin, and die, being full either of ſaltpetre or ſalt liquor; when the ſun hath conſumed its dregs and filth, doth become white again, when the ſun hath drawn and ſtirred up the humidity of the wax, it is ſoftened; but in dirt the ſun doth conſume the humidity which is very much, and ſo doth dry it and make it hard.

Why doth black choler, coming into the paps or to the ſhank, work a corroſion, or gnawing, or waſting, and in thoſe which are melancholy, it doth not work in the like, although it flies into their brain?

Becauſe there are many great veins in the paps by reaſon of engendering milk, and therefore ſtore of that humour doth run thither. And likewiſe to the ſhank, becauſe it goeth downward; but in the brain becauſe it is above, and alſo becauſe it hath very ſmall veins, ſmall ſtore of choler doth aſcend, and which hath only power and force to prick, and not to gnaw and eat. Moreover, the brain is cold and moiſt, whereby it is after a ſort contrary to the diſpoſition of black choler, which doth mortify it. That therefore which is properly called black choler doth breed an eating and gnawing canker in the paps; in the ſhank a bile or ſore

hard

hard to be cured, which of eating is called nimades. In the brain it doth breed a fierce man melancholy; but that which is not properly black choler, but melancholy humour, cauſeth a ſwelling only, which is like a canker, but doth not gnaw and eat, and doth alſo breed a quiet and peaceable melancholy.

What is the reaſon that when we put our finger on the mouth of a watering-pot the water will not run out of the bottom, and the finger being taken away, it runneth preſently?

Becauſe then when the finger is taken away from the mouth of the pot, the air entering in doth thruſt down the water, which of its own nature doth go downward, and ſo goeth out of the bottom. And this is the reaſon of all mechanical engines and inſtruments made by air and water, as clocks and hour-glaſſes made by water.

Why doth wine and water given out of the ſeaſon to the ſick of an ague cauſe a good diſtemperance of the brain; for thoſe two are contrary, for the water is cold and the wine is hot?

I ſay then, that the wine being apt to aſcend, doth burn the brain at the time that it is diſturbed and diſtempered with the ague. And we ſee alſo many which are in health, if they uſe much wine, to be ſcarce well in their wits. But water doth ſtop the paſſages of the body, by which the ſpirits, (which are the inſtruments of the ſoul) are diſſolved, and ſo cauſe them to become thick and groſs, and more corrupt and putrified, which breeds the ague. And oftentimes water being overcome by the ague, becometh its nouriſhment; as we ſee in a ſmith's forge, where a little water doth kindle the fire and make it burn more.

Why have women and children, and gelded men, ſhrill and loud voices?

Becauſe that through the abundance of humidity their artery is not ſtretched wide: and therefore, as a ſmall flute or pipe giveth a ſmall ſlender ſound, ſo of the artery in them that is ſtraight and narrow: for it is the property of heat to make wide and looſen, but women and eunuchs are cold.

Why are children ſtriken with a planet in ſummer time?

They are ſick of a weak and lingering ague, and their eyes ſink hollow in their head, and they become weak and feeble,

feeble, and ſleep very little: and ſome of them have a flux, becauſe children are tender, and do eaſily ſuffer, and have great ſtore of phlegm in the head, as we have ſaid; and therefore the phlegm being overmuch heated with great heats, and alſo putrified, doth inflame the ague, whereupon the griſtles of the brain are ſet on fire, and therefore they ſleep little; and that fire deſcending by the arteries of the heart, and ſetting on fire the lively ſpirits, doth kindle an ague without putrefaction. And ſeeing that much choler ariſes of an ague, thereby it falleth out that the choler gnaweth and eateth the belly. It is plain, that the cauſe of that alteration is in the brain, becauſe that cooling medicines are applied unto the head, and ſuch are good to quench that fire. And ſome of ripe years are ſick of the ſame diſeaſe, that is, ſuch as have phlegm and choler heaped up into their head, which putrify by the very breathing thereof, and after a manner, and by the fiery air the ſpirits are ſet on fire.

Why are round ulcers hard to be cured?

Becauſe they are bred of a ſharp choler, which eats and gnaws, and becauſe it doth run, dropping and gnawing it makes a round ulcer, for which reaſon it requires drying medicines, as phyſicians aſſert. Natural philoſophers ſay, it comes to paſs becauſe there is the beginning where the miſchievous impoſthume doth begin; for in a circle there is neither beginning nor end. When they are burned by the phyſicians they aſſume another kind of ſhape.

Why is honey ſweet to all men, and yet ſeemeth bitter to ſuch as have the jaundice?

Becauſe they have much bitter choler all over their bodies, but abounds with the tongue, whence it happens when they eat honey the humours are ſtirred, and the taſte itſelf, when it hath found the bitterneſs of choler, cauſes an imagination that the honey is bitter.

Why have very angry men fiery eyes;

Becauſe the blood about the heart is fervent, and the ſpirit hot, and ſo being very ſubtile and pure) are carried upwards, and by the eyes (which are clean) they ſhine, and have bloody vapours that aſcend with them, which makes the face red, which Homer, not being ignorant of, ſays, and his eyes were like a burning flame.

Why doth water caſt upon ſerpents cauſe them to fly?

Becauſe

Becauſe they are cold and dry by nature, having but little blood, and therefore fly from exceſſive coldneſs. And that they be of this quality is plain, becauſe they ſeek for dens and ſecret places in the erath, as being warm; and at ſun-ſet ſhun the air, as being cold; and again in ſummer, becauſe the bowels of the earth are cold, they find out the warmeſt places.

Why doth an egg break if it be roaſted, and not if boiled?

The reaſon is, when moiſture comes near the fire it heats it too much, and ſo breeds much wind, which being pent up in little room, forceth its way out, and ſo breaks the ſhell.

The like happens in tubs, or earthen veſſels, when new wine is put in them. And too much phlegm breaks the ſhell of an egg in roaſting; the which doth happen in earthen pots too much heated; wherefore the common people wet an egg when they intend to roaſt it. Hot water, through its ſoftneſs, doth ſeparate its humidity by little and little, and ſo diſſolves it through the thinneſs and paſſages that are in the ſhells.

Why do men in the act of carnal copulation in a manner wink, and find a like alteration in all the other ſenſes?

Becauſe they being overcome with the effect of that pleaſure, do comprehend it the better, winking as it were their eyes. They are not liſted, nor do carry the wind abroad into the air with the ſenſes, whereby they would diſcern thoſe corporal affections.

Why have ſome medicines of one kind contrary force, as experience doth teach; maſtich doth expel, diſſolve, and ſo knit; vinegar both cools and heats?

Becauſe there are ſome ſmall inviſible bodies of them, not by confuſion, but by interpoſition; as ſand moiſtened doth clog together and ſeem to be but one body, though indeed there are many ſmall bodies in ſand. Since this is ſo, it is not abſurd that contrary qualities and virtues ſhould be hidden in maſtich, and nature hath given the law theſe bodies.

Why do our privities ſwell when we hurt one of our toes?

Nature warding for thoſe things which belong to the body haſtes to aſſiſt the part grieved: and becauſe ſhe hath the moſt profitable and nouriſhing of all the humours, it is requiſit: when ſhe doth deſcend to the toe with the blood, that

thoſe veins be filled which are about the privy members, called, Adneſs of the Greeks, which are little round kernels. Therefore immoderate conſtipation doth cauſe inflammation and ſtanding up, and that privy member is called Inguem, borrowing its denomination of the place itſelf.

Why doth not nature give birds a bladder, or a receptacle for urine?

Becauſe they did want much moiſture to give the matter for feathers to grow, and that they conſume with the exerciſe of flying; neither do they piſs at all; and when they drink they void very much dung.

Why have children gravel breeding in their bladder, and old men their kidneys and reins of the kidneys?

Becauſe children have ſtrait paſſages in the kidneys, and an earthy thick humour is thruſt with violence by the urine from the faſhion of the moon, even to the bladder, which hath wide conduits or paſſages that give room for the urine and humour, whereof gravel is engendered to wax thick and ſeat itſelf, as the cuſtom of it is. In old men it is the reverſe, or they have wide paſſages of the reins, back and kidneys, that the urine may paſs away, and the earthy humour congeal and ſink down; the colour of the gravel ſhews the humour whereof the ſtone comes.

Why if the ſtone do congeal and wax hard through heat, (children are hot, and by the ſame reaſon it is done in old men, for there is not ſo much cold to be granted as there is in ice or ſnow, through which extreme cold the kidneys would periſh,) yet we uſe not contrary things to diſſolve coldneſs, but light things, as parſley, fennel, and ſuch like?

They ſay it falleth out that by exceſſive and ſcorching, the ſtones do crumble into ſand, as in earthen veſſels, which when they are overheated or roaſted they become ſand. And by this means it happens that ſmall ſtones are voided together with ſand in making water. Sometimes cold drinks thruſt out the ſtone, the kidneys being ſtretched, and caſting it out by a greater laſk, and eaſing the belly of its burden. Beſides, it often happens that an immoderate heat of the kidneys or of the reins of the back, (through which the ſtone doth grow) is quenched with coldneſs.

Why is the curing of an ulcer or bile in the kidneys or bladder very hard?

Becauſe the urine, being ſharp, doth ulcerate the wound, which

which good and fit medicaments cover the ſkin. Ulcers are harder to cure in the bladder than in the kidneys, becauſe urine ſtays in the former, but runs away from the latter.

What is the reaſon that in bathing veſſels the hot water when it is ſtirred, ſeems the hotter to us, almoſt burning our bodies?

Becauſe when we enter thoſe ſort of baths the water itſelf doth ſuffer, that is, when the water heats our bodies it is made colder by us. We have learnt, that whatever works in generation of corruption, the ſame (without all doubt) doth ſuffer: the water then being in ſome ſort cooled, doth not heat alike, and we being accuſtomed to it, do not feel the heat as we did in the beginning, becauſe it is diminiſhed. If by ſtirring the water more heat is added, which neither hath yet wrought nor ſuffered any thing of the body which is in it that will ſeem very hot and ſcalding, in regard that it ſuffers by ſomething, and ſo by degrees loſes its heat as the firſt did.

How is it if whatſoever be moved is the better for it, eſpecially in ſummer, when the heat of the ſun is moſt violent?

This ſeems a contradiction to the other, for hot water did ſeem hotter to us by moving. Therefore it is a common thing for what is moiſt and principal in any thing, either in quantity or quality, to overcome and change that which is leſs and weaker; and that which is ſtrong doth ſomewhat ſuffer again in doing. Wherefore the hot water, when it is very hot, ſticking to the hot body, cools, and does not retain the ſame quality. The air then which doth compaſs us about being hot in ſummer, like the water compaſſing our bodies, is ſomewhat heated by us, who are hot through the ſeaſon, it heats us as linen garments do, the which being firſt cold, and then ſtir the air, that air which was before heated by us is driven away, and another not heated ſucceeds, and ſeems cold to us.

Why do thoſe ſores which breed in the ball of the eye ſeem white when they have leſs growing and are cold, and others do not ſeem ſuch as grow out of the ball?

Becauſe through the ball of the eye the ſight proceedeth, the which is bright and clear: therefore in the white of the eye, when the wound doth make thick that part of the covering which is like a horn, the ſpirit of the ſight cannot

iſſue out; hence it comes to paſs (much of it being got together) it makes the wound light and clear, ſhewing it white; and, becauſe of the quickneſs of the ſight, the ſpirit cannot get out, it cauſes blindneſs.

Why do chaff and ſtraw keep water hot, and ſnow cold, which are ſeemingly contraries?

Becauſe the nature of chaff wants a manifeſt quality: ſeeing therefore that of their own nature they can eaſily be mingled, and conſumed with that which they are annexed unto, they eaſily alſo take the ſame nature unto them, and therefore being put into hot things, they are eaſily hot, and do heat again, and keep hot, and contrary being made cold of the ſnow, and making the ſnow cold, do keep in its coldneſs. So wax and oil will eaſily be conſumed, and made one with another thing, and are alſo without quality, and do help the quality which is mingled with them, as being made one with them.

Why do the ſtars of heaven ſeem cleareſt in the bright winter time?

Becauſe the air, either which do compaſs us, or that which is higheſt, is ſhade thin, and purged with winds and ſhowers of rain, and by that means our ſight doth ſee both further and clearer. The like is manifeſtly ſeen in running rivers; for ſuch things as are in them are far better ſeen than in the thick ſtanding puddle of water, where either nothing is ſeen or confuſedly.

Why have we oftentimes a pain in making water?

Becauſe that ſharp choler iſſuing out, and prickling the bladder of the urine, doth provoke and ſtir up the whole body to eaſe that part offended, and to expel the humour moderately. This doth happen moſt of all unto children, becauſe they have moiſt excrements, by reaſon of their often filling.

Why do nurſes rock and move their children when they would draw them to ſleep?

To the end that the humours being ſcattered by moving may move the brains; but thoſe of more years cannot endure this.

Why do ſome drunkards ſee double?

Becauſe the muſcles of the ſight being more or leſs filled, and by the ſelf-ſame means weak and feeble, do draw and reſt one eye upward and the other downward, and by that means

means the beams do not look that way at once, but towards divers places and bodies; and therefore each of the eyes uſing a private office and duty of ſeeing doth cauſe a double ſight.

Why are boys apt to change their voices about fourteen years of age?

Becauſe that then nature doth cauſe a great and ſudden change of voice: experience proveth this to be true; for at that time we may ſee that womens paps do grow great, to hold and gather milk, and alſo thoſe places that are above the hips, in which the young fruit ſhould remain. Likewiſe mens breaſts and ſhoulders, which then can bear great and heavy burdens; alſo their ſtones, in which their ſeed may increaſe and abide, and his privy members, to let out the ſeed with eaſe. Further, all the body is made bigger and dilated, as the alteration and change of every part doth teſtify, and the harſhneſs of the voice and hoarſeneſs; for the rough artery, the wind-pipe, being made wide in the beginning, and the exterior and outward part within being unequal to the throat, the air going out at the rough unequal and uneven pipe doth then become unequal and ſharp, and after a ſort hoarſe, ſomething like unto the voice of a goat, wherefore it has its name called Bronchus. The ſame doth alſo happen to them unto whoſe rough artery diſtillation doth flow: it happens by reaſon of the drooping humidity that a light ſmall ſkin filled unequally cauſes the uneven going forth of the ſpirit and air. Underſtand that the wind-pipe of goats is ſuch by reaſon of the abundance of humidity. The like doth happen unto all ſuch as nature hath given a rough artery, as unto cranes. After the age of fourteen they leave off that voice, becauſe the artery is made wider, and reacheth its natural evenneſs and quality.

Why doth oil being drank cauſe one to vomit, and eſpecially yellow choler?

Becauſe that ſeeing it is light and aſcendeth upwards, it provoketh the nutriment in the ſtomach, and lifteth it up, and ſo the ſtomach being grieved, ſummoneth the ejective virtue to vomit, and eſpecially choler, becauſe that is light, and conſiſteth of ſubtle parts, and therefore it is the ſooner carried upward; for when it is mingled with any moiſt thing, it runneth into the higheſt room.

Why doth not oil mingle with moiſt things?

Becauſe that being pliant, ſoft, and conſtipate in itſelf, it cannot be divided into parts, and ſo cannot be mingled, neither if it be put on the earth can it enter into it.

Why is water and oil frozen in cold weather, and wine and vinegar hot?

Becauſe that oil being without all quality, and fit to be compounded with any thing, is cold quickly, and ſo extremely, that it is moſt cold. Water being cold of nature, doth eaſily freeze when it is made colder than its own nature. Wine being hot, and of ſubtle parts, is not ſo ſoon cold, but vinegar being of moſt ſubtle parts, ſuffereth no freezing.

Why do contrary things in quality bring forth the ſame effect?

That which is moiſt is hardened and abounds alike of heat and of cold. Snow and liquid doth freeze with cold; a plaiſter, and gravel in the bladder are made hot with heat. That is ſo indeed, but by two divers actions. The heat doth conſume and eat the abundance of moiſture; but the cold ſtopping and ſhutting with its overmuch thickneſs, doth wring out the filthy humidity, like as a ſponge wrung with the hand doſt caſt out the water which it hath in the pores or ſmall paſſages.

Why doth a ſhaking or a quivering ſeize us oftentimes when any fearful matter doth chance, as a great noiſe or a crack made, the ſudden downfall of water, or a great tree?

Becauſe that oftentimes the humours being digeſted and conſumed with time, and made thin and weak, all the heat vehemently, ſuddenly, and ſharply flying into the inward part of the body, conſumeth the humours which cauſeth the diſeaſe. So treacle hath its effect, and many ſuch like, which are hot and dry, when they are taken after concoction.

Why do ſteel glaſſes ſhine ſo clearly?

Becauſe they are lined in the inſide with white lead, whoſe nature is ſhining, the which being put to the glaſs, which is alſo ſhining, doth ſhine much more; and caſting its beams through the paſſages of the glaſs, doth double that which is in the ſuperficial parts of the glaſs, and without the body of the glaſs, and by that means the glaſs is very ſhining and clear.

Why

Why do we ſee ourſelves in glaſſes and clear water?

Becauſe the quality of the ſight paſſing into the bright bodies by reflection, doth return again by the beam of the eyes, as the image of him who looked on it. That qualities do go forth and paſs from the face, as it is not abſurd, they doſhew which remain near unto trees, becauſe they are wont to look green, for the green quality of green leaves paſſeth to the face of itſelf; likewiſe going unto the running water doth make it ſhew green.

Why do hard dens, hollow and high places, ſend back the likeneſs and ſound of the voice?

Becauſe that in ſuch places alſo by reflection do return back the image of a ſound, for the voice doth beat the air, and the air the place, which the more it is beaten the more it doth bear, and therefore doth cauſe the more vehement ſound of the voice; moiſt places, and as it were ſoft, yielding to the ſtroke, and diſſolving it, give no ſound again; for according to the quality and quantity of the ſtroke, the quality and quantity of the voice is given, which is called an echo. Some do idly fable that ſhe is a goddeſs: ſome ſay that Pan was in love with her, which without doubt is falſe. He was ſome wiſe man, who did firſt deſire to ſearch out the cauſe of that voice; and as they which love, and cannot enjoy their love, are grieved, ſo in like manner was he very ſorry until he found out the ſolution of that cauſe: as Endymion alſo, who firſt found out the courſe of the moon, watching all night, and obſerving her courſe, and ſearching her motion, did ſleep in the day-time, and therefore they do fable that he was beloved of her, and that ſhe came to him when he was aſleep, becauſe ſhe did give to the philoſopher the ſolution of the courſe of herſelf. They ſay alſo that he was a ſhepherd, becauſe that in the deſart and high places he did mark the courſe of the moon. And they gave him alſo the pipe, becauſe that the high places are blown with wind, or elſe becauſe he ſought out the conſonancy of figures. Promotheus alſo being a wiſe man, ſought the cauſe of the ſtar, which is called the eagle in the firmament, his nature and place; and when he was as it were waſted with the deſire of learning, then at the laſt he reſted, when Herculus did reſolve unto him all doubts with his wiſdom.

What is the reaſon that if you caſt a ſtone into a ſtanding water

or farting by the ſundament, the voice by the throat, and a ſound by the ears.

How comes the hair and nails of dead people to grow?

Becauſe the fleſh rotting, withering, and falling away, that which was hidden about the root of the hair doth now appear, and cauſes an imagination that the hair doth grow, ſome ſay it grows indeed, becauſe the dead carcaſſes are diſſolved in the beginning to many excrements and ſuperfluities, by reaſon of the putrefaction which comes to them. Theſe going out at the uppermoſt parts of the body by ſome paſſages do increaſe the growth of the hair.

Why do not the hair of the feet preſently grow grey?

For the ſame reaſon, becauſe that through great motion they diſperſe and diſſolve the ſuperfluous phlegm that breeds greyneſs. The hair of the ſecrets does grow very late, becauſe of the heat of that place, and becauſe that in carnal copulation it does diſſolve the phlegm alſo.

Why do many beaſts wag their tails when they ſee their friends, and a lion and a bull beat their ſides when they are angry?

Becauſe they have the marrow of their backs reaching to the tail, which hath the force of motion in it, the imagination acknowledge that which is known to them as it were with the hand (as happens to men) doth force them to move their tail. This doth manifeſtly ſhew ſome ſecret force to be within them, which doth acknowledge what they ought. In the anger of lions and bulls nature doth conſent to the mind, and cauſeth it to be greatly moved, as men do ſometimes when they are angry, beating their hands on other parts; when the mind cannot be revenged on that which doth hurt, it preſently ſeeks out ſome other ſolace, and cures the malady with a ſtroke or blow.

Why, if you put hot burnt barley upon a horſe's ſore, is the hair which grows upon the ſore not white but like the other hair?

Becauſe it hath the force of expelling, and doth wipe away and diſſolve the excrements of phlegm, as likewiſe all unprofitable matter that is gathered together through the weakneſs of the parts, or crudity of the ſore.

Why doth hair never grow on an ulcer or a bile?

The reaſon is, a man hath a thick ſkin, as is ſeen by the thickneſs of the hair, and ſince the ſcar is thicker than the

ſkin itſelf, it ſtops the paſſages from whence the hair ſhould grow. Horſes have thinner ſkins, as is plain by the thick hair; therefore all paſſages are not ſtopt in their wounds and ſores, and after the excrements which were gathered together have broke a paſſage through thoſe ſmall pores the hair doth grow.

What is the reaſon that ſuch as are bitten with a ſnake, if they are thirſty, quench it by drinking of treacle, which is hot and dry?

I ſay then, it doth not quench thirſt ſolely by its own quality, but by ſome mutual ſympathy and conſent, and natural reaſon. It is a kind of counter-poiſon, and a preſervative too, being compoſed of divers ſorts of herbs that have ſome kind of agreement with all the parts of the body, as dictamnum, dittanger or ginger, hath a proportionable conſervative of the heart, agrimony or livewort with the liver, ſtonewort or finger fern with the ſpleen, parſley with the mouth of the belly, hyſſop with the lungs, elicampane with the reins of the back, rue with the neck, bitterwort the brain, and ſiler montanum with the bladder. Every one of theſe drawn as it were with the ſweetneſs of honey, doth draw that which is beſt for his ſafety; among all of theſe the blood of ſome vipers is mingled, which hath a certain natural diſaffection, which we call antiparium, a contrary of all natural qualities againſt every venomous beaſt and corruptible creature. Theſe being diſtributed into every part, they ſuffer nothing to work that effect which doth threaten corruption, for they do reſiſt like awful ſoldiers who have taken arms for the defence of their country.

Why is fortune painted with a double forehead, one ſide bald, and the other hairy?

The baldneſs ſignifies adverſity, and hairineſs, proſperity, which we enjoy when it pleaſes her.

Why have ſome commended flattery?

Becauſe flattery ſetteth forth before our eyes what we ought to be, though not what we be.

Wherefore ſhould virtue be painted girded?

To ſhew that virtuous men ſhould not be ſlothful but diligent, and always in action.

Why did the ancients ſay it was better to fall into the hands of a raven than a flatterer?

Becauſe

Becauſe ravens dont eat us till we be dead, but flatterers devour us alive.

Why have choleric men beards before others?

Becauſe they are hot, and their pores large and wide.

How comes it that ſuch as have the hickup do eaſe themſelves by holding their breath?

The breath retained doth heat the interior parts of the body, and the hickup proceeds from nothing but cold.

How comes it that old men remember well that which they have ſeen and done in their youth, and forget ſuch things as they ſee and do in their old age?

Things learnt in youth have taken root and habitude in the perſon, but thoſe learnt in age are forgotten, becauſe the ſenſes are weakened in them.

What kind of coveteouſneſs is beſt?

That of time when it is employed as it ought to be.

Why is our life compared to a ſtage play?

Becauſe the diſhoneſt do occupy the place of the honeſt, and the worſt fort the room of the good.

Why do dolphins, when they appear above the water, denote ſome ſtorm or tempeſt approaching?

Becauſe that at the beginning of a tempeſt there do ariſe from the bottom of the ſea certain hot exhalations and vapours which heat the dolphins, cauſing them to riſe up and for cold.

How comes things more quiet in the night than in the day?

The motion of the air, and the coldneſs of the night is the cauſe thereof, which coldneſs continues and hinders the motions.

How comes the Romans to call Fabius Maximus the target of the people, and Marcellus the ſword?

Becauſe the one adapted himſelf to the ſervice of the commonwealth, and the other was very eager to revenge the injuries of his country; and yet they were in the ſenate joined together, becauſe the gravity of the one would moderate the courage and boldneſs of the other.

Why does the ſhining of the moon hurt the head?

Becauſe it moves the humours of the brain, and cannot afterwards reſolve them.

If water do not nouriſh, why do men drink it?

Water cauſes the nutriment to ſpread through the body.

Why

Why is ſneezing good?

It purgeth the brain, as milk is purged by the cough.

What is the ſeat of the affection of the body?

Joy dweileth in the ſpleen, anger in the gall, fear in the heart, and letchery in the liver.

Why is hot water lighter than cold?

Becauſe boiling water hath leſs ventoſity, and is more light and ſubtle, the earthy and heavy ſubſtance being ſeparated from it.

How comes marſh and pond water evil?

By reaſon they are phlegmatic, and do corrupt in ſummer time, the fineneſs of water is turned into vapours, and the earthineſs doth remain.

Why be ſtudious and learned men ſooneſt bald?

It proceeds from a weakneſs of the ſpirits, or becauſe warmth of digeſtion cauſes phlegm to abound in them.

Why doth too much watching make the brain feeble?

Becauſe it increaſes choler, which dries and extenuates the body.

How comes ſteel glaſſes better for the ſight than others?

Steel is hard and doth preſent unto us more ſubſtantially the air that receiveth the light.

How doth love ſhew its greateſt force, by making the fool to become wiſe, or the wiſe become a fool?

In attributing wiſdom to him that hath it not: for it is harder to build than to pull down; and ordinary love and folly are but an alteration of the mind.

How comes too much labour bad for the ſight?

Becauſe it dries the blood too much.

Why is goats milk counted beſt for the ſtomach?

Becauſe it is thick not ſlimy, and they feed upon boughs and wood rather than graſs.

Why do grief or vexation bring grey hairs?

Becauſe it dries, and age is nothing elſe.

How comes he the moſt merry that hath the thickeſt blood?

The blood which is fat and thick makes the ſpirits firm and conſtant, wherein conſiſts the force of all creatures.

In your opinion, which is hardeſt, to obtain the love of a perſon, or to keep it when obtained?

To keep it, by reaſon of the inconſtncy of man, who is

quickly angry, and ſoon weary of a thing; hard to be got, and ſlippery to keep.

Why do ſerpents ſhun the herb rue?

Becauſe they are cold, dry, and full of ſinews, but the herb rue is of a contrary nature.

How comes a capon better to eat than a cock?

The capon loſes not its moiſture, becauſe he does not tread the hens, and therefore is better.

Why do we ſmell a thing leſs in the winter than in the ſummer?

Becauſe the air is thick, and leſs moveable.

How comes hair to burn ſo quickly as it does?

Becauſe the hair is dry and cold.

Why is love compared to a labyrinth?

Becauſe the entry and coming in is eaſy, and the going out impoſſible, or very hard.

The End of the Problems.

ARISTOTLE's

LAST LEGACY,

Unfolding the Mysteries of NATURE

In the GENERATION of MAN.

INTRODUCTION.

WHEN the almighty Architect of the world had formed the heavens in the beginning, and laid the foundations of the earth, and by his bleſſed ſpirit moving upon the abyſs, had created a fair and beautiful world out of a rude maſs and undigeſted Chaos, and by his powerful fiat had brought into being all the ſeveral ſpecies of vegetables and animals, and given even to the plants and vegetables to have ſeed themſelves for the producing their ſeveral kinds or form, and to the animals (which he created male and female) the power of propagating their ſpecies, and had adorned the world with all thoſe beautiful and glorious embelliſhments, that his omnipotent wiſdom and goodneſs ſaw fit and requiſite for that great gueſt he deſigned to bring into it; he at laſt created man, as a Microcoſm, or leſſer world, to be lord of this greater world; not with a bare fiat only as he did the reſt of his creatures, but called (as it were) a counſel of the ſacred Trinity about it; ſaying, Let us make man in our own image, after our own likeneſs, &c. as the divine hiſtorian expreſſes: ſo that a man in his original, is a ray of the divinity, and the very breath of the Almighty; and therefore it is ſaid, God breathed into his noſtrils the breath of life, and he became a living ſoul. Man being thus created, and made lord of the world, had in himſelf at firſt both ſexes; for the text tells us, male and female created he them, and called their name Adam: but yet till Adam was divided he was ſtill alone; and every creature had a mate, he was lord of all: ſo that in paradiſe itſelf he ſeemed to be unhappy wanting a meet help; and therefore his munificent Maker, reſolving to make him completely happy, divides himſelf from himſelf, that by a more agreeable conjunction he might be united to himſelf again; and ſo of a part of himſelf was formed Eve, whom Adam having never ſeen before, by a ſympathy of nature, preſently called bone of his bone, and fleſh of his fleſh; and Adam having thus found a meet help given him by his Creator, he was now completely happy; and being bleſſed by the Almighty, had this law alſo given him, to increaſe and multiply; he being endowed with a natural propenſion thereunto, and the woman having a plaſtic power given her by nature of

the formation of the embryo. This natural inclination and propenſion of both ſexes to each other, with the plaſtic power of nature, is only the energy of the firſt bleſſing and command of the Almighty, which to this day upholds the world.

The myſtery of the generation of that nobleſt piece of creation man, and the unfolding of the plaſtic power of nature in the ſecret workings of generation, and formation of the ſeed in the womb, is the ſubject of the following treatiſe: a ſubject ſo neceſſary to be known by all the female ſex (the conception and bearing of children being that which nature has ordained their province) that many for want of the knowledge hereof periſh with the fruit of their womb alſo, who, had they but underſtood the ſecret of generation diſplayed in this book, might have been ſtill in the land of the living.

It is therefore for the uſe of ſuch that this treatiſe is compiled; wherein the myſtery of generation is not only unravelled, and the abſtruſe ſecrets of nature made known, but the obſtructions and hinderances of generation are declared, and proper remedies againſt all the effects of the womb directed.

If any ſay there are already books enough of this nature extant, I anſwer, there are indeed more books of this kind written than can be read by thoſe that moſt want them; ſome are ſo voluminous, that to read them takes up more time than moſt can ſpare; and beſides, are written in thoſe abſtruſe terms, that the female ſex (I mean the generality of them) can hardly underſtand; whereas this is adapted to their capacities, and ſuits to their leiſure time, conſiſting of plainneſs and brevity. And if the laſt words of men ought to be moſt heeded, as being the trueſt index of their minds, and their moſt correct thoughts, I need not doubt but that Ariſtotle's laſt Legacy will find acceptance, his other works, not ſo correct as this, having been well received. I have no more to ſay, but that I hope the reader will make a good uſe of it, and receive that benefit by it which was deſigned by the writer.

ARISTOTLE's

ARISTOTLE's LAST LEGACY.

Fully unfolding the MYSTERIES of NATURE in the Generation of MAN.

CHAP. I.

Of Virginity, what it is, its Signs and Tokens, and how a Man may know whether he marries a Virgin or not.

THE great Maker of the univerſe, that gives all creatures life and being, and a power in themſelves to propagate their kind or ſpecies, even to the end of the world, has to that end created them male and female; and theſe two of contrary natures and qualities; for in this noble pair, viz. man and woman, the man is hot and dry, the woman cold and moiſt; and theſe two different qualities uniting, are ordained by nature for the procreation of children, the ſeed of the man being the efficient cauſe, and the womb of the woman the field of generation, wherein the ſeed is nouriſhed, and the Embryo conceived and formed, and in due time brought forth.

Since woman then has ſo great a part in the generation of man, I ſhall endeavour to ſhew how nature has fitted her for it; and becauſe a knowledge of the diſeaſe (be it what it will,) is half the cure, I will give a brief deſcription of the ſeveral parts or members of generation; that ſo at any time if any part be affected or out of order it may be ſooner rectified; for if things be not ſpoken to the underſtanding, they had as good not be ſpoken at all; and therefore plainneſs muſt be uſed, yet I hope I do it ſo as not to cauſe a guilty bluſh in the cheek of the fair ſex.

And ſince the firſt ſtate of woman is virginity, order and method require that I ſpeak ſomething of that; and in ſpeaking on it, I will firſt ſhew what it is, and then lay down ſome ſigns and tokens of it, and how it may be known, and then proceed to what I have before promiſed.

Virginity is the boaſt and pride of the fair ſex: though they generally commend it to put it off; and that they may the ſooner get a good huſband and thereby loſe it: and I

think

think they are in the right on't; for if they keep it too long it grows uſeleſs, or at leaſt abates much of its value; a ſtale virgin (if ſuch a thing there be) being looked upon like an old almanack out of date. Virginity is the chief, the beſt, the prime of any thing, and is properly the integrity of a woman's privities, not violated by man, nor known by him, it being the property of a virgin not to have known man. But to come a little more cloſe; there is in young maids in the neck of the womb a pendulous production, called the hymen, which is like the bud of a roſe, half blown, and this is broke in the firſt act of copulation with a man, and from thence came the word defloro, to deflower; becauſe the taking away of virginity is called deflowering a virgin: for when this roſe-bud is expanded, virginity is wholly loſt.

Certain it is, there is in the firſt act of copulation ſomething which cauſeth pain and bleeding, which is an evident ſign of virginity; but what this is authors agree not: ſome ſay it is a nervous membrane, or thin ſkin with ſmall veins, which bleed at the firſt penetration of the yard; others ſay, it is four carbuncles, or bits of fleſh, or little buds, like myrtle-berries, and theſe are plump and full in virgins, but hang looſe and flag in thoſe that have uſed copulation, being preſſed by the yard; ſome have obſerved a fleſhy circle about the nymphæ, or neck of the womb, with little obſcure veins, which make the membrane not to be nervous, but fleſhy.

There is no doubt but that the part which receiveth the yard is not in women that have uſed a man, as it is in virgins: and yet it is not alike in all, which hath cauſed that diverſity of opinions both in authors and anatomiſts; for this is not found in all virgins; exceſs of luſt, and deſire of a man, in ſome, may break the hymen or clauſtrum virginale; ſometimes, when it itcheth they put in their finger, and ſo break it; and ſometimes the midwives break it in the birth; ſometimes it is done by ſtopping of the urine, coughing, violence, ſtraining, or ſneezing: and therefore, if there be no bleeding at the firſt penetration, it is not always a ſign of unchaſtity, but where there is bleeding, it is an unqueſtionable ſign of viginity.

Leo Africanus makes mention of a cuſtom of the Africans at their weddings, which was this; After they were married, the bridegroom and the bride were ſhut up in a cham-

ber,

ber, while the wedding dinner was preparing; and an old woman ſtood at the chamber door to receive from the bridegroom a ſheet, having the bloody tokens of the wife's virginity, which ſhe ſhewed in triumph to all the gueſts, and then they might feaſt with joy; but if there was no blood to be ſeen, the bride was to be ſent home to her friends with diſgrace, and the diſappointed gueſts went ſadly home without their dinner. But notwithſtanding the African cuſtom, I affirm, that ſome honeſt virgins have loſt their maidenheads without bleeding, and therefore are not to be cenſured, as many ignorant men will do, who for want of this token cauſe their wives to lead an uncomfortable life all their days: thoſe coxcombs (though not cuckolds) fancying themſelves to have horns on their heads when it is no ſuch matter.

Some make the ſtraitneſs of the privities to be a ſign of virginity; but this is no certain rule; for much depends upon the age, habit of body, and other circumſtances: though it cannot but be acknowledged that women that have uſed carnal copulation are not ſo ſtrait as virgins; yet this can be no certain argument of virginity; for after repeated acts of venery, the privities may be made ſo ſtrait by the uſe of aſtringent medicines, that a whore may be ſometimes taken for a virgin; and Culpepper mentions a woman that was married, who, deſiring to appear a virgin, uſed a bath of Comfrey roots, whereby ſhe deceived thoſe with whom ſhe had to do.

Some there are that make milk in the breaſt a ſign of loſt virginity; not conſidering there is a twofold milk, the one of virgins, is a malady contrary to nature, the other is natural: the firſt is made of blood that cannot get out of the womb, and ſo go to the breaſts, being nothing but a ſuperfluous nouriſhment that is turned into the milk by the faculty of the breaſts without knowledge of a man; the other is only when there is a child either in the womb or born; yea, the milk differs very much, both in reſpect of the blood and diverſity of veins that bring it to the breaſts; and though both white, yet that of virgins is thinneſt, and leſs in quantity; neither is it ſo ſweet. And therefore, if virgins happen to have ſuch milk, they are not for that reaſon to be deemed unchaſte.

Upon the whole matter, when a man marries, and finds upon

upon lying with his wife the tokens of her virginity, he has all the reaſon in the world to be ſatisfied he has married a virgin: but if on the contrary he finds them not, he has no reaſon to ſuſpect her of unchaſtity, as if ſhe were not a virgin; ſince the Hymen, or Clauſtrum Virginale, may be broken ſo many other ways, and yet the woman be both virtuous and chaſte.

And thus much I thought myſelf bound to ſay in the behalf of the female ſex, who are often accuſed and ſuſpected of diſhoneſty, when there is no occaſion for it.

CHAP. II.

Of the Organs of Generation in Women, with a deſcription of the Fabric of a Woman.

IN deſcribing the organs of generation in women, I ſhall uſe all poſſible plainneſs and perſpicuity, and ſhall not be afraid (ſince I deſign nothing but the inſtruction of the ignorant for their own good ſafety) to ſpeak, ſo as I may be underſtood by the meaneſt capacity, and ſay with the motto of the royal garter, Honi ſoit qui male penſe.

In the genitals of women there are ſeveral parts which muſt be diſtinctly ſpoken; that which appears to view at the bottom of the belly is the Fiſſura Magna, or the great cleft or fiſſure, of an oval form, with its hair about it; alſo the lips, which nature deſigned to keep the internal parts from cold and duſt; theſe are called by the general name of Pudenda, from ſhame-facedneſs, becauſe a woman is aſhamed when thoſe parts are diſcovered or made bare. The Fiſſura Magna reaches from the lower part of the Os Pubis, near to the Anus: But it is cloſer in virgins than in thoſe which have born children, and has two lips, which towards the Pubis grow more full and thick, and meeting upon the middle of the Os Pubis, make that riſing hill called Mons Veneris, or the mount of Venus.

The next thing is the Nymphæ, or wings, which appear when the lips are ſevered, and are framed of ſpungy or ſoft fleſh, and of a red colour, two in number, joined in an acute angle, producing there a fleſhy ſubſtance compoſing the Clytoris, and both in form and colour reſembling the comb of a cock.

The

The Clytoris is a ſinewy and hard body, full of ſpungy and black matter within; and in form repreſents the yard of a man, and is ſubject to erection and falling as that does. This is that which is the ſeat of veneral pleaſure, and gives women delight in the act of copulation; for without this a woman never deſires coition, nor hath pleaſure in it, nor conceives by it. The Clytoris ſometimes grows out of the body two inches, but this very ſeldom happens. And ſome think that Hermaphrodites, or thoſe that have the genitals, are only ſuch women in whom the Clytoris hangs out extremely, and ſo reſembles the form of a yard; and I am almoſt inclined to be of their opinion, eſpecially conſidering that the hanging out of the Clytoris is generally occaſioned through extreme luſt; and both reaſon and authority demonſtrate that the higher the Clytoris is in women, the more violent are their deſires carried after coition, and conſequently the more luſtful.

In the fourth place, under the Clytoris, and above the neck of the womb, are the fleſhy knobs, or carbuncles placed behind the wings, and are like myrtle berries placed one againſt another, in which place is inſerted the orifice of the bladder, for the paſſage of the woman's urine; ſo that the urine of the woman comes not through the neck of the womb, neither is the paſſage of the urine common as in men, but particularly by itſelf.

Near the orifice of the womb, as I ſaid before, there are the carbuncles, or fleſhy knobs, in number four, in form like myrtle-berries: in virgins theſe are round and plump, but in women that have uſed copulation they are looſe and flagging, and often quite extinguiſhed, ſo that the inſide of the neck of the womb appears ſmooth; the uppermoſt of them is largeſt and forked, the others are below this on the ſides, but they all ſerve to keep back the air, or any offenſive thing, from entering the neck of the womb. Theſe carbuncles or knobs are joined together by a thin or ſinewy ſkin or membrane, full of ſmall veins: this membrane hath a hole in the midſt of the paſſage of the monthly courſes, about the bigneſs of the top of one's little finger, in ſuch as are in years fit for marriage: this is that noted ſkin called Hymen, of which I have ſpoken in the former chapter, and which is a certain ſign of virginity wherever it is found, for the firſt act of copulation ſurely breaks it; though, as

I ſaid

I ſaid before, it may be broken without the act of copulation, but it is moſt generally broken by it.

Authors have been of divers opinions concerning this Hymen, or mark of virginity; ſome affirming it to be one thing and ſome another, but whatever it be, this is an undoubted truth that it hath certain veins in it, which bleed in the breaking, and that bleeding ſhews it to be then firſt broke, and conſequently the perſon to be a virgin: and I do believe, that all virgins have it at firſt, it being the mark that God gave to the Hebrews to try their virginity by: and I cannot believe God would give that for a certain ſign of virginity which is not always to be found; and though it may be broke without copulation, yet young maidens ought to be very wary of it, ſince their honour does ſo much depend upon preſerving it. For men are not bound to believe it was broken by accident, though perhaps it might be ſo: to which end they ought to correct and expel all ſharp and corroding humours, which ſometimes gnaw it aſunder, and alſo to avoid all violent exerciſes, which may overſtrain them, and by all means touching it with their fingers. I have in the former chapter told you, that the carbuncles or fleſhy knobs, together with the Hymen, repreſent the form of a half blown roſe, from whence to deflower a virgin hath its original.

The next thing to be ſpoken of is the neck of the womb, which is nothing but the diſtance that is between the privy paſſage and the mouth of the womb, into which the yard goes in the act of copulation; which in ſome women is eight inches in length; its ſubſtance without is fleſhy, but within ſkinny, and exceedingly wrinkled, that it may the better retain ſeed ejected in the act of copulation, and alſo that it may dilate and ſtretch in the woman's labour, that the paſſage may be the wider for the birth of the child. The length of the neck of the womb is very neceſſary, for two reaſons; firſt, that it may be filled with abundance of ſpirits, and there be dilated, for it is better taking hold of the Penis or yard, great heat being required in ſuch motion: which becoming more intent or requiſite by the act of frication conſumes a great quantity of moiſture, which they ought to be large veſſels to ſupply; ſecondly, becauſe the terms or monthly courſes make their way through them: on which account women with child ſometimes continue

their

their purgations; for although the womb be ſhut, yet the paſſage in the neck of the womb, through which theſe veſſels paſs, is open.

I will only obſerve further, that as ſoon as a man penetrates the pudendum, there appears two little pits or holes: theſe contain a humour, which being preſſed out in the time of copulation, gives great delight to the woman.

Having thus ſpoken of the organs of generation in women, I will now deſcribe the fabric of the woman.

The womb is joined to its neck, in the lower part of the hypogaſtrion, and is placed between the bladder and the ſtrait gut. Its parts are two, the mouth of the womb and the bottom of the womb; the mouth or entrance may be both dilated and contracted much like a purſe; for though in the act of copulation it be big enough to receive the glans or nut, or top of the man's yard, yet after conception it is ſo cloſe ſhut that it will not admit the point of a bodkin to enter; and after this at the time of delivery, it dilates itſelf again ſo wide that it makes room enough for the child to come forth; which is ſo wonderful a thing, that all men muſt acknowledge the wiſdom and goodneſs of our great Creator is eminently to be ſeen in it.

Its figure is almoſt perfectly round, and in virgins exceed not the bigneſs of a walnut; yet after conception dilates itſelf gradually, ſo that it is able both to contain the child and all its appurtenances.

It is thick in ſubſtance, inſomuch that it exceeds a thumb's breadth: which after conception is ſo far from decreaſing that it augments very much; and for to ſtrengthen it the more, it is interwoven with Fibres overthwart, which are both ſtrait and winding: and its proper veſſels are veins, arteries and nerves; among which there are two little veins, which paſs from the ſpermatic veſſels to the bottom of the womb, and two larger from the hypogaſtrics, which touch both the bottom and the neck; the mouth of the veins piercing as far as the inward cavity.

Alſo the womb hath two arteries on each ſide of the ſpermatic veſſels, and the hypogaſtric, which ſtill accompany the veins; alſo divers little nerves that are knit and entwined in the form of a net, and extended to the Pudenda, placed chiefly for ſenſe and pleaſure, moving by way of ſympathy between the head and the womb.

The ſtones and teſticles in women differ in ſeveral reſpects from thoſe of men, and that in relation to their place, form, figure, &c. As to the place of men they are ſmooth. In men they are ſaved by muſcles, but in women they are depreſſed and flattiſh, but in men they are oval; in men they have four ſkins, as being without the belly, and ſo expoſed to injuries; whereas in women, where nature has placed them within, they have but one. Their ſubſtance is alſo more ſoft than thoſe of men; and laſtly, their temperature is colder than thoſe of men are. Their office is to contain the ovum, or egg, according to our modern authors. But the ancients are of opinion that they ſerve to concoct the woman's ſeed, and ſo have the ſame office in women as the ſtones have in men. But as to the woman's having ſeed, it is ſtrongly oppoſed by ſome, and as ſtrongly contended for by others; I will therefore ſet down the opinions of both, having firſt made an end of the deſcription of the ſeveral parts belonging to the generation in women, which is what I am now upon.

I come now to ſpeak of the ſpermatic veſſels in women, which are divided or diſtinguiſhed by preparing veſſels, and carrying veſſels: the preparing veſſels are the ſame in number as in men, which are four, two veins and two arteries, not differing from thoſe in a man, but only in their largeneſs and manner of inſertion; the right vein iſſuing from the trunk of the Vena Cava (which is the great vein that receives the blood from the liver, and diſtributes it by its branches to all the body) under the emulgent vein, which is one of the chief branches of the hollow veins paſſing to the reins; but the left ſpringeth from the emulgent of the ſame ſide. Both the arteries iſſue from the great artery called Aorta, becauſe it is the nobleſt and mother of all the reſt: theſe preparing veſſels are much ſhorter in women than in men, becauſe their paſſage is ſhorter; the ſtones of a woman, as I have already noted, lying within the belly, but thoſe of men without; but then what they want in length they have in their various wreathings and contortions, which are more than in men, that the ſubſtance they carry may be the better prepared; and therefore their often turning to and fro, and winding in and out, makes amends for the ſhortneſs of the paſſage. Obſerve alſo, that theſe veſſels are not united as they are in men before they come

come to the ſtones, but are divided into two branches, whereof the greater only goeth to the ſtones, and the leſſer endeth in the womb, both for the nouriſhment of itſelf and the infant, and that part of the courſes may paſs through thoſe veſſels: theſe ſpermatic veins receive the arteries as they paſs by the ſide of the womb, and ſo there is a mixture between the vital and natural blood, that thereby the work of generation might be better wrought. And thus much for the preparing veſſels.

The carrying veſſels, called Vaſa Deferentia, (that is, veſſels which carry the ſeed from the ſtones to the ſeminal veſſels,) ariſe from the lower part of the teſticles, and are in colour white, but in ſubſtance ſinewy; they paſs not ſtraight to the womb, but are wreathen, that the ſhortneſs of the way may be compenſated by their various turnings and windings; and as they come nearer to the womb they grow broader.

The ejaculatory veſſels are two paſſages on each ſide of the womb, and hardly differ in ſubſtance from the ſpermatic veins: they riſe from the bottom of the womb, but reach not either to the ſtones or any other part, but are ſhut up and unpaſſable, adhering to the womb, as the colour does to the hind gut, winding half way about. Although the ſtones are at diſtance from them, and dont ſo much as touch them, yet are they faſtened to them by certain membranes, much reſembling the wings of a Bat, through which certain veins and arteries that paſs from the end of the teſticles have their paſſages, proceeding from the corners of the horns of the womb to the teſticles, being the proper ligaments by which the teſticles and the womb are knit together; and theſe ligaments in men are called the cremaſters, which are the muſcles that hold up the ſtones; of which I ſhall ſpeak further when I treat of the organs of generation in man.

CHAP. III.

Of the Uſe and Action of the Genitals in the Work of Generation.

THE uſe of the external parts, commonly called the Pudenda, are deſigned to cover the great Orifice, or Pitfora Magna, and the uſe of that is to receive the yard

in the act of copulation, and to give paſſage to the child at the birth; and alſo a paſſage for the urine. The uſe of the wings and knobs like myrtle-berries are for the ſecurity of the internal parts, ſhutting the Orifice and neck of the bladder; and by their ſwelling up to cauſe titillation and delight in thoſe parts, and alſo to hinder the involuntary paſſage of the urine. The action of the Clytoris in women is like that of the yard in men, which is erection; and its outer end is like the glans, or the top of the yard, and has the ſame name; and as the glans in man is the ſeat of the greateſt pleaſure in copulation, ſo is this in women.

The action and uſe of the neck of the womb is equal with that of the yard, and is occaſioned ſeveral ways: for, firſt, it is erected and made ſtrait for the paſſage of the yard to the womb in the act of copulation; and then, whilſt the paſſage is repleted with ſpirit and vital blood, it becomes more ſtrait for embracing the yard; and as touching the convenience of erection, it is twofold: firſt, if the neck of the womb was not erected, the yard could have no convenient paſſage to the womb: and, in the ſecond place, it hinders any damage that may happen through the violent concuſſion of the yard in the time of copulation.

And as for thoſe veſſels that make their way through the neck of the womb, their office is to repleniſh it with blood and ſpirits, that ſo as the moiſture conſumes by the heat contracted in copulation, it may by thoſe veſſels be renewed; but their chief buſineſs is to convey nouriſhment to the womb.

The womb has many properties attributed to it; and the firſt is the retention of the ſeed, as the ancients ſpeak, or of the fœcundated egg, as others would have it; and this properly is called conception; and, in the ſecond place, to cheriſh and nouriſh it, till nature has framed the child, and brought it to perfection; and, thirdly, it worketh very ſtrenuouſly in ſending forth the birth, when the time of its remaining there is expired, at which time it ſtretcheth forth itſelf in a very wonderful manner.

The uſe of the preparing veſſels is to convey the blood to the teſticles, part of which is ſpent in the nouriſhment of them, and the production of thoſe little bladders (in all things reſembling eggs) through which the preparing veſſels run, and are obliterated in them; this is done by the arte-

ries;

ries; and as for the veins, their office is to bring back what blood remains from the aforesaid uses.

These vessels (as we have already said) are more short in women than in men, by reason of their nearness to the stones; which defect is sufficiently repaired by the many windings and turnings to which they are subject, dividing themselves in the middle way into two branches, though not of an equal highness, for one is greater than the other.

The stones in women are of that use, that if they are defective, the work of generation ceases; for though (according to the modern opinion) those little bladders which are in their outward superficies contain nothing of seed, yet they contain several eggs, (uncertain as to their number, though generally about twenty) one of which eggs being impregnated by the spirituous part of man's seed in the act of coition, descends into the womb, and in the time nature has appointed becomes a living child.

Having thus given an account of the use and action of the genitals in the act of generation, I shall now shew you the opinion of both ancient and modern writers touching the woman's contributing seed for the formation of the child as well as the man's, which was the opinion of the ancients, but is denied by our modern inquirers into the secrets of nature.

Though it is apparent (say the ancients) that the seed of man is the principal efficient, and beginning of action, motion, and generation, yet that the woman affords seed, and contributes to the procreation of the child, is evident from hence, that the woman has seminal vessels which had been given her in vain, had she wanted seminal excrescence; but since nature doth nothing in vain, it must be granted they were made for the use of seed and procreation, and fixed in their proper places to operate and contribute virtue and efficacy to the seed; and this, say they, is farther proved from hence, that if women at the years of maturity use not copulation to eject their seed, they often fall into strange diseases, as appears by young women and virgins; and also it is apparent that women are never better pleased than when they are often satisfied this way; which argues the pleasure and delight they take therein; which pleasure and delight, say they, is double in women to what it is in men; for as the delight of men consists (in copulation) chiefly in

the ejection of the ſeed, ſo women are delighted both by the ejection of their own and the reception of man's.

But againſt all this our modern writers affirm that the ancients were very erroneous; foraſmuch as the teſticles in women do not afford ſeed, but are two eggs like thoſe of fowls, or other creatures, neither have they any ſuch office as thoſe of men, but are indeed an ovarium, a receptacle for eggs; wherein theſe eggs are nouriſhed by the ſanguinary veſſels diſperſed through them; and from thence one or more, (as they are fœcundated by the man's ſeed) are conveyed into the womb by the oviducts; and the truth of this, ſay they, is ſo plain, that if you boil them their liquor will have the ſame taſte, colour, and conſiſtency with the taſte of birds eggs; and if any object that they have no ſhells, they anſwer, that ſignifies nothing, for the eggs of fowls, while they are in the ovary, nay, after they are fallen into the uterus, have no ſhell; and though they have one when they are laid, yet it is no more than a fence which nature hath provided for them againſt outward injuries, they being hatched without the body; but thoſe of women being hatched within the body, have no need of any other fence than the womb to ſecure them.

And they further ſay, there are in the generation of the fœtus, or conception, or young one, two principles, active, paſſive; the active is the man's ſeed elaborated in the teſticles out of the arterial blood and animal ſpirits; the paſſive principle is the ovum, or the egg, impregnated by the man's ſeed: for to ſay that a woman has true ſeed, is, they ſay, erroneous. But the manner of conception is thus; the moſt ſpirituous part of man's ſeed in the act of copulation reaches up to the ovarium, or teſticles of the woman (which contain divers eggs, ſometimes more, ſometimes fewer) impregnates one of them which being conveyed by the oviducts to the bottom of the womb, preſently begins to ſwell bigger and bigger, and drinks in the moiſture that is plentifully ſent thither, after the ſame manner that ſeeds in the ground ſuck the fertile moiſture thereof to make them ſprout.

But notwithſtanding all this, Culpepper, in his directory for midwives, poſitively affirms, that the teſticles or ſtones of a woman are for the generation of ſeed; in the act of copulation the woman emits the ſeed as well as the man; and he

he ſays, that to deny it is both againſt reaſon and experience. I will not undertake to determine the controverſy, but leave the reader to judge for himſelf, and proceed (having, according to the cuſtom of England, given women the preference) to deſcribe the organs of generation in man; for although the womb be the field of generation, yet there will be no increaſe till the ſeed of man (as the principal efficient in generation) be ſown therein.

CHAP. IV.

Of the Inſtruments or Organs of Generation in Man.

THE Penis, or yard of the man, (being the principal inſtrument of generation) is called ſo, from its hanging without the belly; and it conſiſts of ſkin, tendons, veins, arteries, ſinews, and great ligaments, and is long and round; is ordained by nature both for the paſſage of the urine and the conveying of the ſeed into the matrix. It hath ſome parts common with it to the reſt of the body, as the ſkin and the membrana carnoſa, or fleſhy membrane; and ſome parts it has peculiar to itſelf, as the two nervous bodies; the ſeptum, the urethra, or glands, the four muſcles, and the veſſels.

The ſkin, which the Latins call Cutis, is full of pores, through which the ſweat and fuliginous or ſooty black vapours of the third concoction (which concocts the blood into fleſh) paſs out: the pores are very many and thick, but hardly viſible to the eye, and when the yard ſtands not, it is flaggy; but when it ſtands, it is ſtiff; this ſkin is very ſenſible; becauſe the nerves concur to make up its being.

The carnis membrana, or fleſhy ſkin, is ſo called, becauſe it lieth between the fleſh, and paſſeth in other parts of the body, underneath the fat, and ſticks cloſe to the muſcles, not that there is any fat in the yard, only a few ſuperficial veins and arteries paſs between the former ſkin and this, which, when the yard ſtands, are viſible to the eye. Theſe are the parts common both to the yard and the reſt of the body. Now I will ſpeak of the parts peculiar to itſelf, and firſt of the two nervous bodies.

The two nervous bodies are ſurrounded with a thick, white,

white, nervous membrane; but are ſpungy within, and full of black blood; the ſpungy ſubſtance of the inward part of it ſeems to be woven together like a net, and conſiſts of innumerable veins and arteries; the black blood contained therein is very full of ſpirits, and the deſire of copulation adds heat to them, which cauſeth the yard to ſtand; and the hollow ſpungy intermixture or weaving was ordained on purpoſe to hold the heat or veneral ſpirits, that the yard may not fall before it has done its work; theſe two ſide ligaments of the yard, where they are thick and round, ſpring from the lower part of the ſhare bone, and at their beginning are ſeparated the one from the other, and reſemble a pair of horns, or the letter Y, where the Urethra, that is the common channel of urine and ſeed, paſſeth between them.

The Septum is in ſubſtance white and nervous, and ſinewy, and its office is to uphold the two ſide ligaments and the Urethra.

The Urethra is in ſubſtance ſinewy, thick, ſoft, and looſe, like to that of the ſide ligaments before mentioned. It begins at the neck of the bladder, and ſo paſſeth to the glands; in the beginning of it are three holes: one in the midſt which is largeſt, and receives the urine into it; the other two are ſmaller, which are ſent by each ſeminal veſſel to it, by which it receives ſeed.

The muſcles of the yard are four, two on each ſide. Now a muſcle is an inſtrument of voluntary motion, without which no part of the body can move itſelf: it conſiſts of fibrous fleſh, to make up its body, of nerves for its ſenſe, of veins for its nouriſhment, of arteries for its vital heat, of a membrane or ſkin, to knit together, and ſo diſtinguiſh one muſcle from another; one of each ſide is ſhorter and thicker than the other, and their uſe is to erect the yard and make it ſtand, and are therefore called erectors; the other are longer and ſmaller, and their office is to dilate and open the lower part of the urethra, or channel, both for making water and voiding the ſeed; and theſe are called accelators.

The glands in the extreme part of the yard are ſoft, and of an exquiſite feeling, by reaſon of the thinneſs of the ſkin wherewith it is covered. It is covered with the præputium, or foreſkin, which the Jews were commanded to cut off on the eighth day.

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The ſkin in ſome men cover the top of the yard quite cloſe, but in others it doth not; which moving up and down in the act of copulation brings pleaſure both to the man and woman. The ligaments by which the præputium is tied to the glans is called proenum or the bridle.

The veſſels of the yard are veins, nerves, and arteries; ſome veins and arteries paſs by the ſkin, and are viſible to the eye; others paſs by the inward part of the yard, the arteries being diſperſed through the body of the yard exceeding the diſperſion of the veins, for the right artery is diſperſed to the left ſide; it hath alſo two nerves, the leſſer of which is beſtowed on the ſkin, the greater upon the muſcles and body of the yard.

Having thus deſcribed the yard, I ſhall now ſpeak of the ſtones or teſticles, which are ſo called, becauſe they teſtify or witneſs for him that has them that he is a man. Their number every body knows to be two; their ſubſtance is white, ſoft, and ſpungy: their form is oval, but their bigneſs is not alike; for in ſome they are bigger than others; each ſtone hath a muſcle, becauſe they pull up the ſtones in the act of copulation, that ſo the veſſels being ſlackened may the better void the ſeed.

The uſe of the ſtones is to convert blood and ſpirit into ſeed for the procreation of man, and to add ſtrength, heat, and courage to man; as appears from eunuchs, who having loſt their ſtones, are neither ſo hot, ſtrong, nor valiant as other men.

To the upper part of the teſtis are fixed the epidimieds, or preteſtæ, from whence ariſe viſa deferentia, or ejaculatoria, which when they come to the neck of the bladder, depoſite the ſeed in the viſcula ſeminales; which are two, each like a bunch of grapes, which admit the ſeed into the urethra in the act of copulation; as for the preparing veſſels, they prepare the blood and vital ſpirits, and carry them to the teſticles, where they are elaborated into ſeed, I have ſpoken of them in the chapter of the genitals of women; and ſince they differ ſo little from thoſe of men, I do not need to repeat what I have ſaid before.

CHAP.

CHAP. V.

Of Conception; and how a Woman may know whether ſhe hath conceived or not, and whether a Male or Female.

THE natural inſtinct that nature has imp'anted in men and women to propagate their own ſpecies, puts them upon making uſe of thoſe ways that nature has ordained for that end, which after they have made uſe of, the woman many times through ignorance of her having conceived, or want of that due care ſhe ought to take, is little better than a murderer of her own child, though ſhe intends it not: for, after conception, finding herſelf not well, and through ignorance not knowing what the matter is, they run to a doctor, and enquire of him; and he knowing nothing but what they tell him, and not thinking of their being with child, gives them ſtrong cathartical potions which deſtroys the conception. And ſome there are, that, out of a fooliſh baſhful coyneſs, though they do know they have conceived, yet will not confeſs it, that they might be inſtructed to order themſelves accordingly: thoſe that are ſo coy may in time learn to be wiſer; and for the ſake of thoſe that are ignorant, I ſhall ſet down the ſigns of conception, that women may thereby know whether they have conceived or not.

Signs of Conception.

If under the eye the vein be ſwelled, that is under the lower eye lid, the veins in the eyes appearing clearly, and the eye ſomething diſcoloured: if the woman has not the terms upon her, nor watched the night before, you may certainly conclude her to be with child; and this appears moſt plainly juſt upon her conception: and the firſt two months I never knew this ſign to fail.

Keep the urine of the woman cloſe in a glaſs three days, and then ſtrain it through a fine linen cloth, if you find ſmall living creatures in it, ſhe has moſt aſſuredly conceived with child; for the urine which was before pure

of

of her own ſubſtance, will be generated as well as its miſtreſs.

A coldneſs and chillneſs of the outward parts after copulation, the heat being retired to make conception.

The veins of the breaſt are more clearly ſeen than they were wont to be.

The tops of the nipples look redder than formerly.

The body isweakened, and the face diſcoloured.

The belly waxeth very fat, becauſe the womb cloſeth itſelf together to nouriſh and cheriſh the ſeed.

If cold water be drank, a coldneſs is left in the breaſts.

Loſs of appetite to victuals, ſour belchings, and exceeding weakneſs of ſtomach.

The breaſts begin to ſwell and wax hard, not without pain and ſoreneſs.

Wringing or griping pains, like the cramp, happen in the belly about the navel.

Divers appetites and longings are engendered.

The veins of the eyes are clearly ſeen, and the eyes ſeem ſomething diſcoloured, as a looking glaſs will ſhew you. This is an infallable ſign.

The excrements of the guts are voided painfully, becauſe the womb ſwelling thruſteth the right gut together.

Take a handſome green nettle, and put it into the urine of the woman; cover it cloſe, and let it remain a whole night; if the woman be with child, it will be full of red ſpots on the morrow: if ſhe be not, it will be blackiſh.

There are ſeveral other rules of this nature, but theſe are the beſt, and ſome of them ſeldom fail.

Now, becauſe many are mighty deſirous to know whether they be with child of a male or female, I will in the next place lay down ſome rules whereby you make a judgment in that caſe.

Signs of the Male Child.

The woman breeds a boy eaſier and with leſs pain than girls, and carries her burden not ſo heavily, but is more nimble in ſtirring.

The child is firſt felt by her on the right ſide, for the ancients are of opinion that male children lie on the right ſide of the womb. The woman when ſhe riſeth up from a chair

a chair doth ſooner ſtay herſelf upon her right hand than on her left.

The belly lies rounder and higher than when it is a female.

The right breaſt is more plump, and harder than the left, and the right nipple redder.

The colour of a woman is more clear, and not ſo ſwarthy, as when ſhe conceives a girl.

The contrary to theſe are ſigns of the conception of a female, and therefore it is needleſs to ſet them down.

But I will add the following; they have been the reſult of my own experience, and which I never knew fail.

If the circle under the woman's eyes, which is of a wan blue colour, be more apparent under the right eye, and the veins moſt apparent in her right eye, and then moſt diſcoloured, ſhe is with child of a boy; if the marks be moſt apparent in her left eye ſhe is with child of a girl.

Again, let her milk a drop of her milk in a baſon of fair water; if it ſinks to the bottom, as it drops in round in a drop, it is a girl ſhe is with child of, but if it be a boy, it will ſpread and ſwim at top. This I have often tried, and it never failed.

But before I make an end of this chapter, I ſhall lay down ſome rules that women ought to obſerve in order to conception, and likewiſe what they ſhould do after conception, to prevent miſcarriage.

What Women ought to obſerve in order to Conception.

Women that are deſirous to have children, in order thereunto muſt give themſelves to moderate exerciſe; for idleneſs and want of exerciſe are very great enemies to generation work; and thoſe that obſerve it ſhall find that our city dames, who live high and do nothing, ſeldom have children, or if they have, they ſeldom live: whereas the poor women who accuſtom themſelves to labour, have many children, and thoſe luſty. Nor need we wonder at it, if we conſider the benefit that comes by moderate exerciſe and labour: for it opens the pores, quickens the ſpirits, ſtirs up the natural heat, ſtrengthens the body, ſenſes and ſpirits, and comforts the limbs, and helps nature in her exercites, of which the procreation of children is none of the leaſt.

Next

Next to moderate exercise, she must avoid all manner of discontent, and the occasion of it: for discontent is a great enemy to conception; but discontent is not so great an enemy to conception, but contentment and quietness of mind are as great friends to it; for content dilates the heart and arteries, whereby the vital blood or spirit is sufficiently distributed throughout the body; and thence arise such affections as please, recreate, and refresh the nature of man; as hope, joy, love, gladness, and mirth. Nor does it only comfort and strengthen the body, but also the operations and imaginations of the mind; for all agree, that the imaginations of the mother works forcibly upon the conception of the child; and therefore women ought to take great care that their imagination be pure and clear, that their children may be well formed.

Another thing that women ought to do in order to conception is to keep the womb in good order; and to that end, see that the menstrues come down as they ought to do: if they are discoloured, then they are out of order, but if the blood come down pure, then the woman will be very prone to conceive with child, especially if they use copulation a day or two after their monthly terms are stayed.

Another thing a woman ought to observe that would conceive, is, that she use not the act of copulation too often; for satiety gluts the womb, and makes it unfit to do its office. There are two things demonstrate this; one is, that the common whores (who often use copulation) have seldom any children; the other is, that those women whose husbands have been long absent, after they come again, conceive very quickly.

And then let the time of copulation be convenient, that there may be no fear or surprize, for fear hinders conception.

And then let the time of copulation be natural, and not stirred up by provocatives: and observe also, that the greater the woman's desire of copulation is, the more subject she is to conceive.

A loadstone carried about a woman causeth not only conception, but concord between man and wife.

Things neceſſary for Women to obſerve after Conception.

Women are very ſubject to miſcarriages in the two firſt months after conception, becauſe then the ligaments are weak and ſoon broken. To prevent which, let the woman every morning drink a good draught of ſage ale, and it will do her abundance of good.

But if ſigns of abortion or miſcarriage appear, let her lay a toaſt dipped in tent, in caſe muſkadel cannot be gotten, to her navel, for this is very good; or let her take a little garden tanſey, and having bruiſed it, ſprinkle it with muſkadel, and apply it to the navel, and ſhe will find it much better. Alſo tanſey infuſed in ale, like ſage-ale, and a draught drank every morning, is moſt excellent for ſuch women as are ſubject to miſcarriages: alſo take juice of tanſey, clarify it, and boil it up into a ſyrup, with twice its weight in ſugar, and let a woman take a ſpoonful or two of it, in ſuch caſes it will be an excellent preſervative againſt miſcarriages.

Alſo let the air be temperate, ſleep moderate, avoiding watching, and unmoderate exerciſe, with diſturbing paſſions, loud clamours and filthy ſmells; and let her abſtain from ill things which may provoke either the urine or the courſes, and alſo from all ſharp and windy meats, and let a moderate diet be obſerved.

If the excrements of the guts be retained, lenify the belly with clyſters made of the decoction of mallows, violets, with ſugar and common oil; or make broth of burrage, buglos, beets, mallows, and take therein a little manna: but, on the contrary, if ſhe be troubled with a looſeneſs of the belly, let it not be ſtopped without the judgment of a phyſician, for old uterine fluxes have a malignant quality in them, which muſt be evacuated and removed before the flux be ſtayed.

CHAP.

CHAP. VI.

Of Barrenneſs, with the Remedies againſt it, and the Signs of Inſufficiency both in Men and Women.

HAVING in the foregoing chapter treated of conception, with the ſigns, and given directions to the women both before and after conception, I wil in this chapter treat of the oppoſite to conception, to wit, barrenneſs.

It is a bleſſing to have children, as undoubtedly it is, then certainly barrenneſs muſt be a great curſe: And indeed in Holy Writ it is ſo accounted; and therefore ſome are threatened that they ſhall die childleſs; and the wife of Jacob, even his beloved Rachel, cried out to him, "Give me chil-"dren, or elſe I die." It was indeed a paſſionate expreſſion, and fell out according to her words; for ſhe had children, and died in childbed. But to the ſubject in hand, which is barrenneſs

Barrenneſs is threefold, to wit, either natural or accidental, or againſt nature.

Natural barrenneſs is when a woman is barren, though the inſtruments of generation are perfect both in herſelf and huſband, and no prepoſterous and diabolical courſe uſed to cauſe it, and neither age nor diſeaſes, nor any natural defect hindering, and yet the woman remains naturally barren, and conceives not.

Now this may proceed from a natural cauſe; for if the man and woman be of one complexion, they ſeldom have children, and the reaſon is clear: for the univerſal courſe of nature being formed by the Almighty of a compoſition of contraries, cannot be increaſed by a compoſition of likes; and therefore, if the conſtitution of the woman be hot and dry as well as that of the man there can be no conception: and if on the contrary the man ſhould be of a cold and moiſt conſtitution, as well as the woman, the effect would be the ſame; and this barrenneſs is purely natural. The only way to help it, is for people before they marry to obſerve each others conſtitutions and complexions, if they deſign to have children; if their complexions and conſtitutions be alike, they are not fit to come together; for diſ-

cordant natures make the only harmony in the work of generation.

Another natural cauſe of barrenneſs is want of love between man and wife: love is that vital principle that ought to animate each organ in the act of generation, or elſe it will be but ſpiritleſs and dull: for if their hearts be not united in love, how ſhould their ſeed unite to cauſe conception? And this is ſufficiently evidenced, in that there never follows a conception upon a rape; therefore, if men and women deſign to have children, let them take care to live ſo, that their hearts as well as their bodies may be united, r elſe they may miſs of their expectations.

A third cauſe of natural barrenneſs, is the letting of virgins blood in the arm before their natural courſes are come down, which is uſually in the fourteenth and ſixteenth years of their age; ſometimes perhaps before the thirteenth, but never before the twelfth. And becauſe uſually they are out of order and indiſpoſed before their purgations come down, their parents run to the doctor to know what is the matter, and he ſtraight preſcribes opening a vein in the arm; ſeeing it was fulneſs of blood which was the cauſe offending, as this makes her well at preſent; and when the young virgin happens to be in the ſame diſorder again, the mother ſtraight runs to the ſurgeon, uſes the ſame remedy, and by theſe means the blood is diverted from its proper channel, ſo that it comes not down to the womb, as in other women, whereby the womb dries up, and the woman is for ever barren. The way to prevent this, is to let no virgin blood in the arm before her courſes come down; but if there be occaſion, in the foot, for that will bring the blood downward, and by that means provoke the menſtrues to come down.

Another cauſe of natural barrenneſs is, the debility of perſons in copulation: if perſons perform not that act with all the heat and ardour that nature requires, they may as well let it alone, and expect to have children without it; for frigidity and coldneſs never produce conception. Of the cure of this we will ſpeak by and by after I have ſpoken of

Accidental barrenneſs; which is what is occaſioned by ſome morbific matter or infirmity upon the body, either of the man or woman, which being removed, they become fruitful.

fruitful. And hence (as I have before noted) the first and great law of the creation was to increase and multiply, and barrenness is the direct opposition of that law, and fruitrates the end of our creation; and it is so great an affliction to many to be without children, as to cause man and wife to have hard thoughts of one another, each party thinking the cause is not in them: I shall here, for the satisfaction of all well meaning people, set down the signs and causes of insufficiency both in men and women; premising this first, that when people have not children, they must not presently blame either party, for neither may be in the fault, but perhaps God sees it not good (for reasons best known to himself) to give them any; of which we have divers instances both in secret and profane history: And though the Almighty in the production of nature works by natural means, yet where he withholds his blessings, natural means are ineffectual; for it is his blessing that is the power and energy by which nature brings her productions forth.

Signs and Causes of Insufficiency in Men.

One cause may be in some viciousness in the yard; as if the same be crooked, or any ligaments thereof distorted or broken, whereby the ways and passages through which the seed should flow come to be stopped or vitiated.

Another cause may be too much weakness of the yard, and tenderness thereof, so that it is not strongly enough erected to inject the seed into the womb; for the strength and stiffness of the yard very much conduces to conception, by reason of the forcible injection of the seed.

Also if the stones have received any hurt, so that they cannot exercise their proper gift in producing seed; or if they be oppressed with any inflammation or tumour, wound or ulcer, not drawn up within the belly, and not appearing outwardly, these are signs of insufficiency, and causes of barrenness.

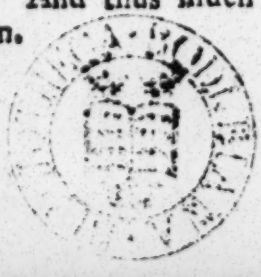
Also a man may be barren, by reason of the defect of his seed: as, First, if he cast forth no seed at all, or less in substance than is needful; or, Secondly, if the seed be vicious, or unfit for generation; as on the one side it happens in bodies that are gross and fat, the matter of it being defective; and on the other side too much leanness, or con-

tinual waſting or conſumption of the body deſtroys the ſeed, nature turning all the matter and ſubſtance thereof into nutriment of the body.

Too frequent copulation is alſo one great cauſe of barrenneſs in men; for it attracteth the ſeminal moiſture from the ſtones before it is ſufficiently prepared and corrected; ſo if any one by daily copulation do exhauſt and draw out all the moiſture of his ſeed, then do the ſtones draw the moiſt humours from the ſuperior veins unto themſelves; and ſo having but little blood in them, they are forced of neceſſity to caſt it out raw and unconcocted; and thus the ſtones, violently deprived of the moiſture of their veins, attract the ſame from the other ſuperior veins, and the ſuperior veins from all the other parts of the body for their proper nouriſhment, thereby depriving the body of its vital ſpirits; and therefore no wonder that thoſe who uſe immoderate copulation are very weak in their bodies, ſeeing their whole body is thereby deprived of its beſt and pureſt blood, and alſo of the vital ſpirits, inſomuch, that many who have been too much addicted to that pleaſure have killed themſelves in the very act; and therefore it is no wonder if ſuch unconcocted and digeſted ſeed be unfit for generation.

Gluttony and drunkenneſs, and other exceſſes, do alſo much hinder men from fruitfulneſs, and make them unfit for generation.

But amongſt other cauſes of barrenneſs in men, this alſo is one that makes them barren, and almoſt of the nature of eunuchs, and that is the inciſion, or cutting of the veins behind the ears; which, in caſe of diſtempers, is oftentimes done; for, according to the opinion of moſt phyſicians and anatomiſts, the ſeed flows from the brain by thoſe veins behind the ears more than from any other part of the body; from whence it is very probable the tranſmiſſion of the ſeed is hindered by the cutting of the veins behind the ears, ſo that it cannot deſcend at all to the teſticles, or come thither very crude and raw. And thus much for ſigns and cauſes of barrenneſs in men.



Signs

Signs and Cauſes of Inſufficiency, or Barrenneſs in Women.

Although there are many cauſes of barrenneſs in women, yet the chief and principal are internal, reſpecting either the privy parts of the womb, the ſeed, or the menſtruous blood.

Therefore Hippocrates ſaith (ſpeaking of either the eaſy or difficult conception in women) the firſt conſideration is to be had of their ſpecies, for little women are more apt to conceive than great, ſlender than groſs, white and fair than ruddy and high coloured, black than pale and wan: thoſe which have their veins conſpicuous are more apt than others; but to be very fleſhy is evil; to have great ſwelling breaſts good.

The next thing to be conſidered is the monthly purgations, whether they have them duly every month, and whether they flow plentifully, are of a good colour, and whether they have them equally every month; for ſo they ought to be.

Then the womb or place of conception is to be conſidered; it ought to be clean and ſound, dry and ſoft, not retracted, nor drawn up, nor prone, nor deſcending downward, nor the mouth thereof turned awry, nor too cloſe ſhut. But to ſpeak more particularly.

The firſt parts to be ſpoken of are the Pudenda, or privities, and the womb; what parts are ſhut and incloſed either by nature or againſt nature; and from hence ſuch women are called Imperforate; for in ſome women the mouth of the womb continues compreſſed, or cloſed up, from the time of their birth, until the coming down of their courſes; and then, on a ſudden, when their terms preſs forward to purgation, they are moleſted with great and unuſual pains; ſome of theſe break of their own accord, others are diſſected and opened by a phyſician; others never break at all, and then it brings death.

All theſe Aetius particularly handles, ſhewing that the womb is ſhut three manner of ways, which hinders conception: and the firſt is, when the lips of the Pudenda grow or cleave together; the ſecond is, when there are certain membranes growing in the middle part of the matrix within; the third is, when (though the lips and boſom of the Pudenda

denda may appear fair and open) the mouth of the womb may be quite ſhut up; all which are occaſions of barrenneſs, in that they hinder both the uſe of man, the monthly courſes, and conception.

But amongſt all the cauſes of barrenneſs in women the greateſt is in the womb, which is the field of generation; and if the field be corrupted, it is in vain to expect any fruit, let it be never ſo well ſown; for it may be unfit for generation, by reaſon of the many diſtempers to which it is ſubject; as for inſtance, overmuch heat and overmuch cold; for women whoſe wombs are too thick and cold cannot conceive, becauſe coldneſs extinguiſheth the natural heat of the human ſeed.

Immoderate moiſture of the womb alſo deſtroys the ſeed of man, and makes it ineffectual, as corn ſown in fens and marſhes; and ſo doth overmuch dryneſs of the womb, ſo that the ſeed periſheth for want of nutriment.

Immoderate heat of the womb is alſo a cauſe of barrenneſs: for it ſcorcheth up the ſeed, as corn ſown in the drought of ſummer: for immoderate heat hurts all the parts of the body, and no conception can live to be nouriſhed in that woman.

Alſo when unnatural humours are engendered; as too much phlegm, tympanies, wind, water, worms, or any ſuch evil humours, abounding contrary to nature; it cauſes barrenneſs, as does alſo the terms not coming down in due order, as I have already ſaid.

A woman may alſo have other accidental cauſes of barrenneſs, (at leaſt ſuch as may hinder her conception) as ſudden frights, anger, fear, griefs, and perturbation of the mind, too violent exerciſes; as leaping, dancing, running after copulation, and the like But I will now add ſome ſigns whereby thoſe things may be known.

If the cauſe of barrenneſs be in the man through overmuch heat in his ſeed, the woman may eaſily feel that in receiving it.

If the nature of the womb be too hot, and ſo unfit for conception, it will appear by having her terms very little, and their colour inclining to yellowneſs; ſhe is alſo very haſty, choleric, and crafty, her pulſe beats very ſwift, and ſhe is very deſirous of copulation.

If you would know whether the fault lies in the man or woman,

woman, ſprinkle the man's urine upon one lettuce leaf, and the woman's upon another, and that which dries away firſt is unfruitful.

Alſo take five wheat corns, and ſeven beans, put them into an earthen pot, and let the party make water therein; let this ſtand ſeven days, and if in that time they begin to ſprout, then the party is fruitful; but if they ſprout not, then the party is barren: whether it be man or woman; this is a certain ſign.

There are ſome that make this experiment of a woman's fruitfulneſs.

Take myrrh, red ſtorax, and ſome ſuch odoriferous things, and make a perfume of it, which let the woman receive into the neck of the womb through a funnel; if the woman feels the ſmoke aſcend through her body to her noſe, then ſhe is fruitful, otherwiſe barren.

Some alſo take garlic, and beat it, and let the woman be on her back upon it, and if ſhe feels the ſcent thereof to her noſe, it is a ſign of fruitfulneſs.

Culpepper and others alſo give a great deal of credit to the following experiment.

Take a handful of barley, and ſteep half of it in the urine of the man, and the other half of it in the urine of the woman, for the ſpace of twenty-four hours, and then take it out, and ſet it, the man's by itſelf, and the woman's by itſelf; ſet it in a flower pot, or ſome other thing where you may keep it dry; then water the man's every morning with his own urine, and the woman's with hers, and that which grows firſt is the moſt fruitful, and if one grow not at all that party is naturally barren.

But now having ſpoken enough of the diſeaſe, it is high time to aſſign the cure.

If barrenneſs proceedeth from ſtoppage of the menſtrues, let the woman ſweat, for that opens the parts, and the beſt way to ſweat is in a hot houſe.

Then let the womb be ſtrengthened by drinking a draught of white wine, wherein a handful of ſtinking arrack firſt bruiſed has been boiled; for by a ſecret magnetic virtue it ſtrengthens the womb, and by a ſympathetic quality removes any diſeaſe thereof. To which add alſo a handful of vervain, which is very good to ſtrengthen both the womb and

and head, which are commonly afflicted together by a ſympathy.

Having uſed this two or three days, if they come not down, take of calamint, penny-royal, thyme, bettony, dittany, burnet, feverfew, mugwort, ſage, piony roots, juniper berries, half a handful of theſe, or ſo many of them as can be gotten; let all theſe be boiled in beer, and drank for her ordinary drink.

Take one part of gentian, two parts of centuary, diſtil them with ale in an alembic, after you have bruiſed the gentian-roots, and infuſed them well. This water is an admirable remedy to provoke the terms. But if you have not this water in readineſs, take a dram of centuary, and half a dram of gentian roots, beat them to powder, and take it in the morning in white-wine, or elſe take a handful of centuary, and half a handful of gentian roots bruiſed; boil it in poſſet drink, and drink a draught of it at night going to bed. Seed of wild-navew beaten to powder, and a dram of it taken in the morning in white wine, is alſo very good. But if this doth not do, you muſt let blood in the legs. And be ſure you adminiſter your medicine a little before the full of the moon, or between the new and full moon, but by no means in the wan of the moon; if you do you will find them ineffectual.

If barrenneſs proceeds from the overflowing of the menſtrues, then ſtrengthen the womb, as you were taught before, and afterwards anoint the reins of the back with oil of roſes, oil of myrtles, or oil of quinces, every night, and then wrap a piece of white bays about your reins, the cotton ſide next your ſkin, and keep the ſame always to it. But above all, I commend this medicine to you; Take comfrey leaves or roots, and clowns, wounds-wort, of each one handful, bruiſe them well, and boil them in ale, and drink a good draught of it every now and then: or take caſſia, cinnamon, lignea, opium, of each two drams: myrrh, white-pepper, galbanum, of each one dram: diſſolve the gum and opium in white-wine, beat the reſt into powder; then make them into pills, by mixing of them together exactly, and let the patient take two pills every night going to bed; but let not both the pills exceed fifteen grains.

If barrenneſs proceed from a flux of the womb, the cure muſt be according to the cauſe producing it, or which the flux

flux proceeds from. which may be known by its ſigns; for a flux of the womb being a continual diſtillation from it for a long time together, the colour of what is voided ſhews what humour it is that offends; in ſome it is red, and that proceeds from blood putrified; and in ſome it is yellow, and that denotes choler; in others white and pale, and that denotes phlegm. If pure blood comes out, as if a vein was opened, ſome corroſion or gnawing of the womb is to be feared. All of them are known by theſe ſigns.

The place of conception is continually moiſt with the humours, the face is coloured, the party loaths meats, and breathes with difficulty: the eyes are much ſwollen, which is ſometimes with pain. If the offending humour be pure blood, then you muſt let blood in the arm, and the cephalic vein is fitteſt to draw back the blood, and then let the juice of plantain and comfrey be injected into the womb. If phlegm be the cauſe, let cinnamon be the ſpice uſed in all her meats and drinks; and let her take a little venice-treacle or mithridate every morning: let her boil burnet mugwort, feverfew and vervain in all broths. Alſo half a dram of myrrh taken every morning is an excellent remedy againſt this malady. If choler be the cauſe, let her take burgage, bugloſs, red roſes, endive, and ſuccory roots, lettuce and white poppy ſeed, of each a handful; boil theſe in white wine till one half is waſted; let her drink half a pint every morning; to which half pint add ſyrup of peach flowers and ſyrup of chicory, of each one ounce, with a little rhubarb; and this will gently purge her. If it proceed from putrified blood, let her blood in the foot, and then ſtrengthen the womb, as I have directed, in ſtopping the menſtrues.

If barrenneſs be occaſioned by the falling out of the womb, as it ſometimes happens, let her apply ſweet ſcents to her noſe, ſuch as civet, galbanum, ſtorax calamitis, wood of aloes, and ſuch other things as are of that nature, and let her lay ſtinking things to the womb, ſuch as aſſa fœtida oil of amber, or the ſmoke of their own hair being burnt; for this is certain that the womb flies from all ſtinking, and applies to all ſweet things. But the moſt infallible cure in this caſe is this: take a common burdock leaf (which you may keep dry if you pleaſe all the year) apply this to her head, and it will draw the womb downward. But feed

beaten

beaten into powder has alſo the like virtue; for by a magnetic power it draws the womb which way you pleaſe, according as it is applied.

If barrenneſs proceeds from a hot cauſe, let the party take whey and clarify it, then boil plantain leaves and roots in it, and drink it for her ordinary drink. Let her alſo inject the juice of plantain into the womb with a ſyringe: if it be in the winter, when you cannot get the juice, make a ſtrong decoction of the roots and leaves in water, and inject that up with a ſyringe; but let it be blood warm, and you will find this medicine of great efficacy. And further, to take away barrenneſs proceeding from hot cauſes, take often conſerve of roſes, cold lozenges made of tragacanth, the confection of tricantelia, and uſe to ſmell camphire, roſe-water, and ſaunders. It is alſo good to breathe the baſilica, or liver-vein, and then take this purge; take electuarium de epithimo de ſacco roſarum, of each two drams and a half, clarified whey four ounces; mix them well together, and take it in the morning faſting; ſleep after it about an hour and half, and faſt four hours after it; and about an hour before you eat any thing drink a good draught of whey. Alſo take lilly-water four ounces; mandrogar-water one ounce, ſaffron half a ſcruple; beat the ſaffron to powder, and mix it with the waters, and drink them warm in the morning; uſe this eight days together.

Here followeth ſome excellent Remedies againſt Barrenneſs, and to cauſe Fruitfulneſs.

Take broom flowers, ſmallage, parſley ſeed, cummin, mugwort, feverfew, of each half a ſcruple; aloes half an ounce; India ſalt, ſaffron, of each half a dram, beat and mix well together, and put it into five ounces of feverfew water warm, ſtop it cloſe, and let it ſtand and dry in a warm place; and thus do two or three times one after another; then make each dram into ſix pills, and take one of them every other night before ſupper.

A confection very good againſt barrennels. Take piſtachia, pingles, eringoes, of each half an ounce; ſaffron one dram, lignum aloes, gallingale, mace, caryophilla, balm flowers, red and white behen, of each four ſcruples; ſhaven ivory, caſſia bar, of each two ſcruples; ſyrup of

confected ginger twelve ounces; white ſugar ſix ounces; decoct all theſe well together in twelve ounces of balm water, and ſtir it well together, then put to it of muſk and amber, of each half a ſcruple: take hereof the quantity of a nutmeg three times a day; in the morning, and an hour before noon, and an hour after ſupper.

But if the cauſe of barrenneſs either in man or woman be through the ſcarcity or diminution of the natural ſeed, then ſuch things are to be taken as do increaſe the ſeed, and incite or ſtir up venery and farther conception; which I ſhall here ſet down, and ſo conclude this chapter of barrenneſs.

For this, yellow rape ſeed baked in bread is very good: alſo young fat fleſh, not too much ſalted; alſo ſaffron, the tails of ſtincus, and long pepper prepared in wine: let ſuch perſons eſchew alſo ſour, ſharp, doughty and ſlimy meats, long ſleep after meat, ſurfeiting and drunkenneſs; as much as they can, keep themſelves from ſorrow, grief, vexation, and care.

Theſe things following increaſe natural ſeed and ſtir up to venery, and recover the ſeed again when loſt, viz. eggs, milk, rice boiled in milk; ſparrows brains, fleſh, bones and all; the ſtones and pizzles of bulls, bucks, rams, and boars: alſo cock-ſtones, lamb-ſtones, partridges, quails, and pheaſants eggs; and this is an undeniable aphoriſm, that whatſoever any creature is addicted unto, they move or incite the man or woman that eats them to the like: and therefore partridges, quails, ſparrows, &c. being extremely addicted to venery, they work the ſame effect in thoſe men and women that eat them. Alſo take notice, that in what part of the body the faculty which you would ſtrengthen lies, take the ſame part of the body of another creature in whom the faculty is ſtrong for a medicine. As, for inſtance, the procreative faculty lies in the teſticles; therefore cock-ſtones, lamb-ſtones, &c. are proper to ſtir up venery. I will alſo give you another general rule: creatures that are fruitful, being eaten, make them fruitful that eat them; as crabs, lobſters, prawns, pigeons, &c.

Authors have ſet down ſeveral ways for the prevention of barrenneſs; to carry the herb St John's wort about them; which for that cauſe was called by the ancients Fuga Demonum, or the devil driver. Alſo to carry a load-ſtone

about them, was accounted a great preſervative; as likewiſe a plaiſter of St John's wort laid to the reins; and laſtly, the heart of a turtle dove carried about them; but theſe are only for prevention. But you will ſay, how if prevention comes too late, and the miſchief be done already, then the man cannot give his due benevolence, muſt the poor man remain helpleſs, and the good woman go without what ſhe is married for? no, there is help even in this caſe alſo; and the cure is eaſy; which though the reader may ſcruple to believe, yet it has been tried and found effectual; it is no more than this, let the man only make water through his wife's wedding ring, and the enchantment will be broke; and thus one piece of witchcraft is made to drive out another. But I will here put a period to this chapter.

CHAP. VII.

Of the Pleaſure and Advantage of Marriage, with the unequal Matches, and the ruinous Effect of unlawful Love.

WEhave hitherto been treating of the generation of man, which is effected by man and woman in the action of coition or copulation. But this can be no ways lawfully done but by thoſe who are joined together in wedlock, according to the inſtitution of the Creator in paradiſe, when he firſt brought man and woman together: Which being ſo, it neceſſary leads us to treat of the pleaſure and advantage of a married life.

And ſure there is none that reaſonably queſtion the pleaſure and advantage of a married life but that does reflect upon its author, or the time and place of its inſtitution. The author and inſtitutor of marriage was no other than the great Lord of the whole univerſe, the Creator of heaven and earth, whoſe wiſdom is infinite, and therefore knew what was beſt for us, and whoſe goodneſs is equal to his wiſdom, and therefore inſtituted marriage, as what was beſt for the man whom he had but juſt created, and whom he looked upon as ſhort of that complete happineſs which he had deſigned him whilſt he was alone, and had not the help-mate provided for him. The time of its inſtitution is no leſs remarkable; it was whilſt our firſt parents were cloathed

cloathed with that virgin purity and innocence in which they were created; it was at a time wherein they had a bleſſed and uninterrupted converſe and communion with their great Creator; and were complete in all the perfections both of mind and body, being the lively image of him that created them; it was at a time when they could curiouſly ſurvey the ſeveral incomparable beauties and perfections of each other, without ſin, and knew not what it was to luſt; it was at this happy time the Almighty divided Adam from himſelf, and of a crooked rib made him an helpmate for him; and by inſtituting marriage, united him unto himſelf again in wedlock's ſacred bands. And this muſt needs ſpeak very highly in commendation of a married life.

But we have yet conſidered only the time; now let us conſider next what place it was wherein at firſt this marriage knot was tied, and we ſhall find the place was Paradiſe, a place formed by the great Creator for delight and pleaſure; and in our uſual dialect, when we would ſhew the higheſt ſatisfaction we take, and give the greateſt commendation to a place, we can aſcend no higher than to affirm it was like a Paradiſe. There are many curious delicacies and delights to pleaſe the eye and charm the ear in the gardens of princes and noblemen; but Paradiſe did certainly out-do them all, the ſacred Scripture giving of it this high encomium, it was pleaſant as the garden of God. It was in the midſt of Paradiſe, the centre of delight and happineſs; that Adam was unhappy while in a ſingle ſtate; and therefore marriage may properly be ſtiled the Paradiſe of Paradiſe itſelf.

I will ſhew you the love of a good wife to her huſband, in an illuſtrious example of a queen of our own nation.

King Edward the firſt, making a voyage to Paleſtine, for the recovery of the Holy Land, in which expedition he was very victorious and ſucceſsful, took his queen along with him, who willingly accompanied him in all the dangers he expoſed himſelf to. It ſo happened, that after ſeveral victories obtained, which made him both beloved and feared, he was wounded by a Turk, with an impoiſoned arrow, which all the king's phyſicians concluded mortal, unleſs ſome human creature would ſuck away the impoiſoned blood out of the wound; at the ſame time declaring that it would be the death of thoſe that did it: upon this the thing was pro-

poſed to ſeveral of the courtiers; but they all waved this dangerous piece of loyalty: and as well as they pretended to love the king, yet loved their own lives better; and therefore with a compliment declined it; which, when the noble queen perceived, and that the king muſt die for want of ſuch a kind aſſiſtance, ſhe, with braveneſs worthy of herſelf, declared ſhe was reſolved herſelf to undertake this cure, and venture her own life to ſave the king her huſband; and ſo accordingly ſucked the poiſonous matter from the wound, and thereby ſaved the king; and Heaven, which did inſpire her with that generous reſolution, preſerved her too, as a reward for her great conjugal affection.

But that which renders marriage ſuch a mormo, and makes it look like ſuch a bugbear to our modern ſparks, are thoſe unhappy conſequences that too often attend it; for there are few but ſee what inauſpicious torches Hymen lights at every wedding; what unlucky hands link in the wedding ring; nothing but fears and jars, and diſcontents or jealouſies, a curſe as cruel, or elſe barrenneſs, are all the bleſſings which crown the genial bed. But it is not marriage that is to blame for this; theſe things are only the effects of forced and unequal matches; when greedy parents, for the thirſt of gold, will match a daughter that is ſcarce ſeventeen to an old miſer that is above threeſcore, can any think they two can ever agree, whoſe inclinations are as different as the months of June and January. This makes the woman (who ſtill wants a huſband, for the old miſer is ſcarce the ſhadow of one) either to wiſh, or may be to contrive his death, to whom her parents, thus againſt her will, have yoked her; or elſe, to ſatisfy her natural inclinations, ſhe throws herſelf into the arms of unlawful love, both of which are equally deſtructive, and which might both have been prevented, had too greedy inconſiderate parents provided her ſuch a match as had been ſuitable and proper. A ſad truth of an inſtance which follows:

There lived in Warwickſhire a gentleman of very good eſtate; who being grown ancient, at the death of his firſt wife thought of marrying his ſon and heir, then at man's eſtate, to the daughter of a neighbouring gentleman, of an ancient family, and a fair eſtate, who approved of the motion, and agreed to give 500l. with his daughter upon her marriage with the young gentleman. No ſooner had the

father

father a ſight of the young lady, but forgetting his ſon, he became a ſuitor for himſelf; and to obtain her, offered as much money for her (beſides the ſettling a good jointure on her) as her father had promiſed to give with her to his ſon. This liberal offer ſo wrought on the lady's father, that what with perſuaſions, and what with menaces, he forced his daughter, unwilling to conſent, to be married to the old man. But as ſhe was in a manner compelled to this unequal match, ſo ſhe never lived contentedly with him; for her affections wandering after other men, ſhe gave entertainment to a young gentleman of twenty-two years of age, whom ſhe liked much better than her huſband, as one more ſuitable to her young years; that ſhe grew impatient for her huſband's death, whom ſhe thought every day to live an age too much; and therefore ſought to cut that thread of life ſhe was of an opinion nature lengthened out too long; and to that end having corrupted her waiting woman, and a groom belonging to the ſtable, ſhe reſolved by their aſſiſtance, and that of her enamorato, to murder him in his bed by ſtrangling him: which reſolution (although her lover failed her, and came not at the time ſhe appointed him, recoiling at the diſmal apprehenſion of a fact ſo horrid) ſhe executed only by her ſervants. For watching till her huſband was aſleep, ſhe let in thoſe aſſaſſins, and then caſting a long towel about his neck, ſhe cauſed the groom to lie upon him, that he might not ſtruggle, whilſt ſhe and her maid, by ſtraining the towel, ſtopped his breath. And now, the next thing was how to prevent diſcovery; and to that end they carried him to another room, where a cloſe-ſtool was placed, on which they ſet him; and when the maid and groom were both withdrawn and the coaſt clear, ſhe made ſuch an hideous out-cry in the houſe, wringing her hands, and pulling her hair, and weeping ſo extremely, that none ſuſpected her; for ſhe alledged, that miſſing him ſome time out of bed, ſhe went to ſee what was the matter he ſtaid ſo long, found him dead, ſitting on his cloſe-ſtool; which ſeeming very plauſible, prevented all ſuſpicions of his death. And being thus rid of her huſband, ſhe ſet a greater value upon her beauty, and quite ſhook off her former lover, (perhaps becauſe he had implicitly refuſed to be an actor in her huſband's tragedy) and coming up to London, made the beſt market of her beauty that ſhe could. But murder is a crime

that ſeldom goes unpuniſhed to the grave; in two years after juſtice overtook her, and brought to light this horrid deed of darkneſs. The groom (one of the actors of this fatal tragedy, being retained a ſervant with the ſon and heir of the old murdered gentleman, for whom the lady was at firſt deſigned) with ſome other ſervants attending him to Coventry, his guilty conſcience (he being in his cups) forced him upon his knees, to beg forgiveneſs of his maſter for the murder of his father. And taking him aſide, acquainted him with all the circumſtances of it.

The gentleman, though ſtruck with horror and amazement at the diſcovery of ſo vile a fact, yet gave the groom good words, but ordered his ſervants to have an eye upon him, that he might not eſcape when he was ſober, and had conſidered what might be the iſſue of the confeſſion he made; and yet eſcape he did, for all their vigilance; and being got to the ſea-ſide, was (after three attempts to get to ſea, being as often forced back by the winds proving contrary) happily purſued and apprehended by his maſter, and brought a priſoner back to Warwick, as was ſoon after the lady and her gentlewoman alſo, who were all juſtly executed for that horrid murder: the lady being burnt on Wolvey heath, and the two ſervants ſuffered death at Warwick, leaving the world a ſad example of the diſmal conſequences of doting love, and of unequal matches: for had this lady not been forced (through the deſire of lucre in her parents) to marry the old knight, but had been married to the ſon, as was firſt intended, the old gentleman might have prevented an untimely death, and the young lady lived with innocence and honour.

And though in many ſuch like matches the miſchief does not run ſo high as to break forth into adultery and murder, but the young lady, from a principle of virtue and the fear of God, curbs all her natural inclinations, and is contented with the performance of her huſband (how weak ſoever it be, and cold and frigid) and does preſerve her chaſtity ſo pure and immaculate, as not to let one wandering thought corrupt it; yet even in this very caſe, her huſband, conſcious of the abatement of his youthful vigour, and his own weak imbecile performance of the conjugal rites, ſuſpects his virtuous lady, and watches over her with Argus's eyes, making himſelf and her unhappy by his ſenſeleſs jealouſy;

and

and though he happens to have children by her (which well may be, having ſo good ground to improve on) yet he can ſcarcely think they are his own. His very ſleep is diſturbed with dreams of cuckoldom and horns, nor dares to keep a pack of hounds, for fear Actæon's fate ſhould follow him. Theſe are a few of the ſad effects of old men's dotage and unequal marches.

But let us turn the tables now, and ſee if it be the better on the other ſide, when a young ſpark of two and twenty marries a granum of threeſcore and ten, with a face more wrinkled than a piece of tripe. This I am ſure is more unnatural: here can be no increaſe unleſs of gold, which oftentimes the old hag (for who can call her better, that marries a young boy to ſatisfy her leacherous itch, when ſhe is juſt tumbling into the grave) conveys away before her marriage to her own relations, and leaves the expecting coxcomb nothing but repentance for his portion. Pocket expences ſhe will perhaps allow him, and for thoſe ſlender wages he is bound to do the baſeſt drudgery. But if he meets with money (which was the only motive of the match, her gold being the greateſt cordial at the wedding feaſt) he does profuſely ſquander it away, and riots in exceſs amongſt his whores, hoping e'er long his antiquated wife will take a voyage to another world, and leave him to his liberty; whilſt the old grand dame, finding her money waſted, and herſelf deſpiſed, is filled with thoſe reſentments, that jealouſy, and envy, and neglected love can give, hoping each day to ſee him in his grave, though ſhe has almoſt both feet in her own; thus each day they wiſh for each other's death, which, if it comes not quickly, they often help to haſten.

But theſe are ſtill excreſcences of marriages, and are the errors of people marrying, and not the fault of the marriage itſelf. For let that be what God at firſt ordained, a nuptial of two hearts as well as hands, whom equal years and mutual love had firſt united before the parſon join their hands: and ſuch will tell you, that mortals can enjoy no greater happineſs on this ſide heaven.

CHAP.

CHAP. VIII.

Directions to both Sexes, how to manage themſelves in the Act of Coition or Veneral Embraces.

HAVING ſhewed in the former chapter the pleaſures and advantages of marriage, I will now give ſome directions to the new married perſons how to manage themſelves in the exerciſes of one of the greateſt, moſt natural and agreeable pleaſures thereof, and that is their nocturnal or veneral embraces; a pleaſure peculiar to a married life, or at leaſt it ought to be ſo; for it is not permitted to any beſides. And let not any think it ſtrange that we pretend to give directions to do what nature teacheth every one, ſince it is well known that nature has been aſſiſted by art in ſome of her moſt noble obſervations; beſides, it is not the bare performing of that act that they are directed to, but the performing of it ſo that it may be efficacious for the production or generation of man, which our great maſter Ariſtotle deſigns in this his laſt legacy to the world. To which purpoſe, ſome things are to be obſerved previous to this act, and ſome things conſequential of it.

Firſt, Things previous to it.

When married perſons deſign to follow the propenſions of nature for the production of fair images of themſelves, let every thing that looks like care and buſineſs be baniſhed from their thoughts, for all ſuch things are enemies to Venus, and let their animal and vital ſpirits be powerfully exhilerated by ſome briſk and generous reſtoratives; and let them, to invigorate their fancies, ſurvey the lovely beauties of each other, and bear the bright ideas of them in their minds. And ſome have thought it neceſſary, for the more heightening of their joys, for the briſk bridegroom to delineate the ſcene of their approaching happineſs unto the amorous bride, in ſome ſuch heroical rapture as this:

I will

I will enjoy thee, now, my faireſt; come,
And fly with me to love's Elyſium;
Now my unfranchis'd hand on ev'ry ſide
Shall o'er thy naked poliſh'd iv'ry ſlide.
Now free as th' ambient air, I will behold
Thy bearded ſnow and thy unbraided gold.
No curtain now, tho' of tranſparent lawn,
Shall be before thy virgin treaſure drawn.
Now thy rich mine, to my enquiring eye
Expos'd, ſhall ready for my mintage lie.
My rudder with thy bold hand, like a try'd
And ſkilful pilot, thou ſhalt ſteer, and guide
My bark into love's chamber, where it ſhall
Dance as the bounding waves do riſe and fall,
And my tall pinnace in the Cyprian ſtreight
Shall ride at anchor and unlade her freight.

Having by theſe and other amorous arts (which love can better dictate than my pen) wound up your fancies to the higheſt pitch of deſire;

Perform thoſe rites which mighty love requires,
And with each other quench your amorous fires.

But then, in the ſecond place, when coition is over, ſome further directions are neceſſary; and therefore let the vanquiſhed bridegroom (for he muſt needs be vanquiſhed that has in the encounter loſt his artillery) take heed how he retreats too ſoon out of the field of love, leſt he ſhould thereby leave an entrance too open, and ſome cold ſhould thereby ſtrike into the womb. But after he has given time for the matrix to cloſe up, and made all ſure, he may withdraw, and leave the bride unto her ſoft repoſe, which ought to be with all the calmneſs that the ſilent night (and a mind free from all diſturbing care) can give, inclining her to reſt on her right ſide, and not removing without great occaſion, till ſhe has taken her firſt ſleep. She alſo ought to have great care of ſneezing, and avoid coughing if it is poſſible, or any other thing that cauſes a too violent emotion of body. Neither ſhould they too often reiterate thoſe amorous engagements, till the conception be confirmed: and even then the bride-

bridegroom ſhould remember, that it is a market that laſts all the year, and ſo ſhould have a care of ſpending his ſtock too laviſhly. Nor would his bride like him be at all the worſe for it; for women rather chuſe to have a thing done well than to have it often; and well and often too can never hold out.

CHAP. IX.

The Midwives Vade-Mecum: containing particular Directions for Midwives and Nurſes, &c.

THOSE that take upon them the office of a Midwife ought to take care to fit themſelves for that employment, with the knowledge of thoſe things that are neceſſary for the faithful diſcharge thereof. And ſuch perſons ought to be of the middle age, neither too young nor too old: and of a good habit of body, not ſubject to diſeaſes, fears, or ſudden frights; nor are the qualifications aſſigned to a good ſurgeon improper for a midwife, viz. a lady's hand, a hawk's eye, and a lion's heart; to which may be added activity of body, and a convenient ſtrength, with caution and diligence, not ſubject to drowſineſs, nor apt to be impatient. She ought alſo to be ſober, affable, courteous, chaſte, not covetous, or ſubject to paſſion, but bountiful and compaſſionate. And, above all, ſhe ought to be qualified as the Egyptian midwives of old. that is, to have the fear of God, which is the principal thing in every ſtate and condition; and will furniſh her on all occaſions both with knowledge and diſcretion.

When the time of birth draws near, and the good woman finds her travailing pains begin to come upon her, let her ſend for her midwife in time; better too ſoon than too late, and get thoſe things ready which are proper upon ſuch occaſions. When the midwife comes, let her firſt find whether the true time of her birth be come, for the want of obſerving this hath ſpoiled many a child, and endangered the life of the mother; or at leaſt put her to twice as much pain as needful. For unſkilful midwives not minding this have given things to force down the child, and thereby diſturbed the natural courſe of her labour: whereas nature works beſt in her own time and way. I do confeſs, it is ſomewhat

ſomewhat difficult to know the true time of ſome womens labour, they being troubled with pains ſo long before their true labour comes, even ſome weeks before; the reaſon of which I conceive to be the heat of their reins, and this may be known by the ſwelling of their legs; and therefore, when women with child find their legs to ſwell much, they may be aſſured that their reins are too hot. For the cure whereof, let them cool the reins before the time of their labour with oil of poppies, and oil of violets, or water-lilies, by anointing the reins of their back with them; for ſuch women whoſe reins are over hot have uſually hard labour. But in this caſe, above all the remedies that I know, I prefer the decocting of plantain leaves and roots; you may make a ſtrong decoction of them in water, and then having ſtrained and clarified it with the white of an egg, boil it into a ſyrup with its equal weight of ſugar, and keep it for your uſe.

There are two ſkins that compaſs the child in the womb, the one is the amnois, and this is the inner ſkin; the other is the allantois, and this is the ſkin that holds the urine of the child during the time that it abides in the womb: both thoſe ſkins, by the violent ſtirring of the child near the time of the birth, are broken: and then the urine and ſweat of the child contained in them fall down to the neck of the womb; and this is that which the midwives call the water, and is an infallable ſign that the birth is near; for the child is no longer able to ſubſiſt in the womb, after thoſe ſkins are broken, than a naked man is in the cold air. Theſe waters, if the child come preſently after them, facilitate the labour, by making the paſſage ſlippery; and therefore the midwife muſt have a care that ſhe force not the water away, for nature better knows the true time of the birth than ſhe, and uſually retains the water till that time.

Several Medicines to cauſe ſpeedy Delivery.

A LOADSTONE held in her left hand. Take wild tanſey and bruiſe it, and apply it to the woman's noſtrils. Take alſo date ſtones, and beat them to powder, and let her take half a dram of them in white wine at a time.

Take parſley, bruiſe it, and preſs out the juice, and put

put it up (being ſo dipped) into the mouth of the womb, and it will preſently cauſe the child to come away, though it be dead, and the after-burden alſo; beſides it cleanſeth the womb, and alſo the child in the womb, of all groſs humours.

Let no midwife ever force away a child unleſs they are ſure it is dead. I once was where a woman was in labour, which being very hard, her midwife ſent for another midwife to aſſiſt her, which midwife ſending the firſt down ſtairs, and deſigning to have the honour of delivering the woman herſelf, forced away the body of the child, and left the head behind; of which the woman was forced afterwards to be delivered by a man midwife.

After the child is born, great care is to be taken by the midwives in cutting the navel-ſtring, which though by ſome is accounted but a trifle, yet it requires none of the leaſt ſkill of a midwife to do it with that prudence and judgment that it ought. And that it may be done ſo, you muſt conſider as ſoon as the child is freed from its mother, whether it be weak or ſtrong, (for both the vital and natural ſpirits are communicated by the mother to the child by its navel-ſtring) if the child be weak, put back gently part of the vital and natural blood in the body of the child by its navel, for that recruits a weak child; but if the child be ſtrong you may forbear.

As to the manner of cutting the child's navel-ſtring, let the ligature or binding, be very ſtrong, and be ſure do not cut it off very near the binding, leſt the binding unlooſe. You need not fear to bind the navel-ſtring very hard, becauſe it is void of ſenſe, and that part of the navel ſtring which you leave on falls of its own accord in a few days; the whole courſe of nature being now changed in the child, it having another way ordained to nouriſh it. It is no matter with what inſtrument you cut it off, ſo it be but ſharp, and you do it cleverly. The piece of the navel ſtring that falls off, be ſure you keep it from touching the ground; remember what I have before told you. And if you keep it by you it may be of uſe. The navel-ſtring being cut off, apply a little cotton or lint to the place to keep it warm, leſt the cold enters into the body of the child, which it will be apt to do if it be not bound hard enough.

The next thing to be done, is to bring away the afterbirth

or

or ſecundine, elſe it will be very dangerous for the woman. But this muſt be done by gentle means, and without any delays, for in this caſe eſpecially delays are dangerous; and whatever I have ſet down before, as good to cauſe ſpeedy delivery, and bring away the birth, is good alſo to bring away the after birth.

And after the birth and after-birth are brought away, if the woman's body be very weak, keep her not too hot: for extremity of heat weakens nature, and diſſolves the ſtrength; but whether ſhe be weak or ſtrong, let no cold air come near her at firſt; for cold is an enemy to the ſpermatic parts. If cold gets into the womb, it increaſes the after-pains, cauſes ſwellings in the womb, and hurts the nerves.

If what I have written be carefully obſerved by midwives, and ſuch nurſes as keep women in their lying in, by God's bleſſing the child-bed woman may do very well, and both midwife and nurſe gain credit and reputation.

For though theſe directions may in ſome things thwart the common practice, yet they are grounded upon experience, and will infallably anſwer the end.

But there are ſeveral accidents that lying-in women are ſubject unto, which muſt be provided againſt, and theſe I ſhall ſpeak to next.

The firſt I ſhall mention are after pains, about the cauſe of which authors very much differ; ſome think they are cauſed by the thinneſs, ſome by the thickneſs, ſome by the ſlimineſs, and ſome by the ſharpneſs of the blood; but my own opinion is, it proceeds from cold and water. But whatever the cauſe may be, this I know, that if my foregoing directions be obſerved, they will be very much abated, if not quite taken away. But if in caſe they do happen, boil an egg, and pour out the yolk of it, with which mix a ſpoonful of cinnamon-water, and let her drink of it; and if you mix it with two grains of ambergreaſe, it will be better.

The ſecond accident lying-in women are ſubject to, is excoriations in the lower part of the womb. To help this, uſe oil of ſweet almonds, or rather oil of St John's wort, to anoint the part withal.

Another accident is, that ſometimes through very hard labour, and great ſtraining to bring the child into the world,

the lying-in woman comes to be troubled with the hemorrhoids, or piles; to cure this, let her uſe polypodium bruiſed and boiled in her meat and drink.

A fourth thing that often follows, is the retention of the menſtrues; this is very dangerous, and if not remedied proves mortal.

But for this, let her take ſuch medicines as ſtrongly provoke the terms; and ſuch are piony roots, dittany, juniper-berries, betony, centuary, ſage, ſavory, penny-royal, feaverfew.

The laſt thing I ſhall mention is, the overflowing of the menſtrues. This happens not ſo oft as the foregoing, but yet ſometimes it does, and in ſuch caſes take ſhepherd's purſe, either boiled in any convenient liquor, or dried and beaten to powder, and you will find it very good to ſtop them.

Having thus finiſhed my Vade Mecum for midwives, before I conclude, I will add ſomething of the choice and qualifications of a good nurſe, that thoſe who have occaſion for them may know how to order themſelves, for the good of their children which they nurſe.

Firſt then, if you would chuſe a good nurſe, chuſe one of a ſanguine complexion; not only becauſe that complexion is generally accounted beſt, but alſo becauſe all children in their minority have their complexion predominant. And that you may know ſuch a woman, take the following deſcription of her.

Her ſtature is of the middle ſize, her body fleſhy, but not fat; but of a merry, pleaſant and cheerful countenance; a freſh ruddy colour, and her ſkin ſo very clear that you may ſee her veins through it. She is one that loves company, and never cares to be alone; never given to anger, but mightily to playing and ſinging; and which makes her the fitteſt perſon for a nurſe, ſhe very much delights in children. In chuſing ſuch a one, you can hardly do amiſs; only let me give you this caution, if you cannot get one exactly of this deſcription, (which you will find very difficult) get one as near as you can to it. And let theſe rules further guide you in your choice.

1. Let her age be between twenty and thirty, for then ſhe is in her prime.

2. Let her be in health, for her ſickneſs infects the milk, and her milk the child.

3. Let

3. Let her be a prudent woman, for ſuch a one will be careful of the child.

4. Let her not be too poor, for if ſhe wants, the child muſt want too.

5. Let her be well bred, for ill bred nurſes corrupt good nature.

6. If it be a boy that is to be nurſed, let the nurſe be ſuch a one whoſe laſt child was a boy, and ſo it will be the more agreeable; but if it be a girl, let the nurſe be one whoſe laſt child was a girl.

7. If the nurſe has a huſband, ſee that he be a good likely man, and not given to debauchery, for that may have an influence upon the child.

8. In the laſt place, let the nurſe take care ſhe be not with child herſelf; for if ſo, ſhe muſt of neceſſity either ſpoil her own, or yours, or perhaps both.

To a nurſe thus qualified, you may put your child without danger.

And let ſuch a nurſe take the following directions, for the better governing and ordering herſelf in that ſtion.

Directions for Nurſes.

1. LET her uſe her body to exerciſe: if ſhe hath nothing elſe to do, let her exerciſe herſelf by dancing the child; for moderate exerciſe cauſeth good digeſtion; and I am ſure good blood muſt needs make good milk; and good milk cannot fail of making a thriving child.

2. Let her live in good air; there is no one thing more material than this. It is the want of this makes ſo many children die in London; and even thoſe few that live are none of the wiſeſt; for groſs and thick air makes unwieldy bodies and dull wit; and let none wonder at this, for the operation of the air to the body of a man is as great as meat and drink, for it helps to engender the vital and animal ſpirits; and this is the cauſe of ſickneſs and health, of life and death.

3. Let her be careful of her diet, and avoid all ſalt meats, garlic, leeks, onions, and muſtard, exceſſive drinking of wine, ſtrong bear or ale, for they trouble the child's body with choler; cheeſe, both new and old, afflicts it with melancholy, and all fiſh with phlegm.

4. Let her never deny herſelf ſleep when ſhe is ſleepy, for by that means ſhe will be more wakeful when the child cries.

Let her avoid all diſquiets of mind, anger, vexation, ſorrow and grief, for theſe things very much diſorder a woman, and therefore muſt needs be hurtful to the milk.

If the nurſe's milk happen to be corrupted by an accident, as ſometimes it may be, by being either too hot or too cold, in ſuch caſes let her diet be good, and let her obſerve the cautions already given her. And then, if her milk be too hot, let her cool it with endive, ſuccory, lettuce, ſorrel, purſlain, and plantain; if it be too cold, let her uſe beverage, vervain, bugloſs, mother of thyme, and cinnamon; and let her obſerve this general rule, whatſoever ſtrengthens the child in the womb the ſame attends the milk.

If the nurſe wants milk, the thiſtle, commonly called our lady thiſtle, is an excellent thing for her breeding of milk, there being few things growing (if any) that breed more and better milk than that doth; alſo the hoof of the fore-feet of the cow, dried and beaten to powder, and a dram of the powder taken every morning in any convenient liquor increaſes milk.

Remedies for increaſing of Milk.

IF a nurſe be given to much fretting it makes her lean, and hinders digeſtion, and ſhe can never have ſtore of milk, nor what ſhe hath be good. Bad meats and drinks alſo hinder the increaſe of milk, and therefore ought to be foreborne; and therefore women that would increaſe their milk ſhould eat good meat (that is, if they can get it) and let her drink milk wherein fennel-ſeed have been ſteeped. Let her drink barley-water, and burrage and ſpinage; alſo goats-milk, cows-milks, and lamb ſodden with verjuice; let her alſo comfort the ſtomach with confection of anniſeed, carraway and cummin-ſeeds, and alſo uſe thoſe ſeeds ſodden in water; alſo take barley-water, and boil therein green-fennel and dill, and ſweeten it with ſugar, and drink it at your pleaſure.

Hot fomentations open the breaſts and attack the blood,

as

as the decoction of fennel, ſmallage, or ſtampt mint applied. Or,

Take fennel and parſley, green, each a handful, boil and ſtamp them, and barley-meal half an ounce, gith-ſeed a dram, ſtorax, calamint, two drams, oil of lilies two ounces, and make a poultice.

Laſtly, Take half an ounce of deer's-ſuet, and as much parſley roots, with the herbs, an ounce and a half of barley-meal, three drams of red ſtorax, and three ounces of oil of ſweet almonds; boil the root and herbs well, and heat them to pap, then mingle the other amongſt them, and put it warm to the nipples, and it will increaſe the milk.

And thus, courteous Reader, I have at length finiſhed what I deſigned, and what I promiſed, and can truly affirm, that thou haſt here thoſe Receipts, Remedies, and Directions given unto thee, with reſpect to Child-bearing Women, and Midwives, and Nurſes, that are worth their weight in gold, and will aſſuredly (with the bleſſing of God) anſwer the end whenſoever thou haſt occaſion to make uſe of them, they being not things taken on truſt from tradition or hearſay, but the reſult and dictates of ſound reaſon and long experience.

FINIS.